LRP
electronics

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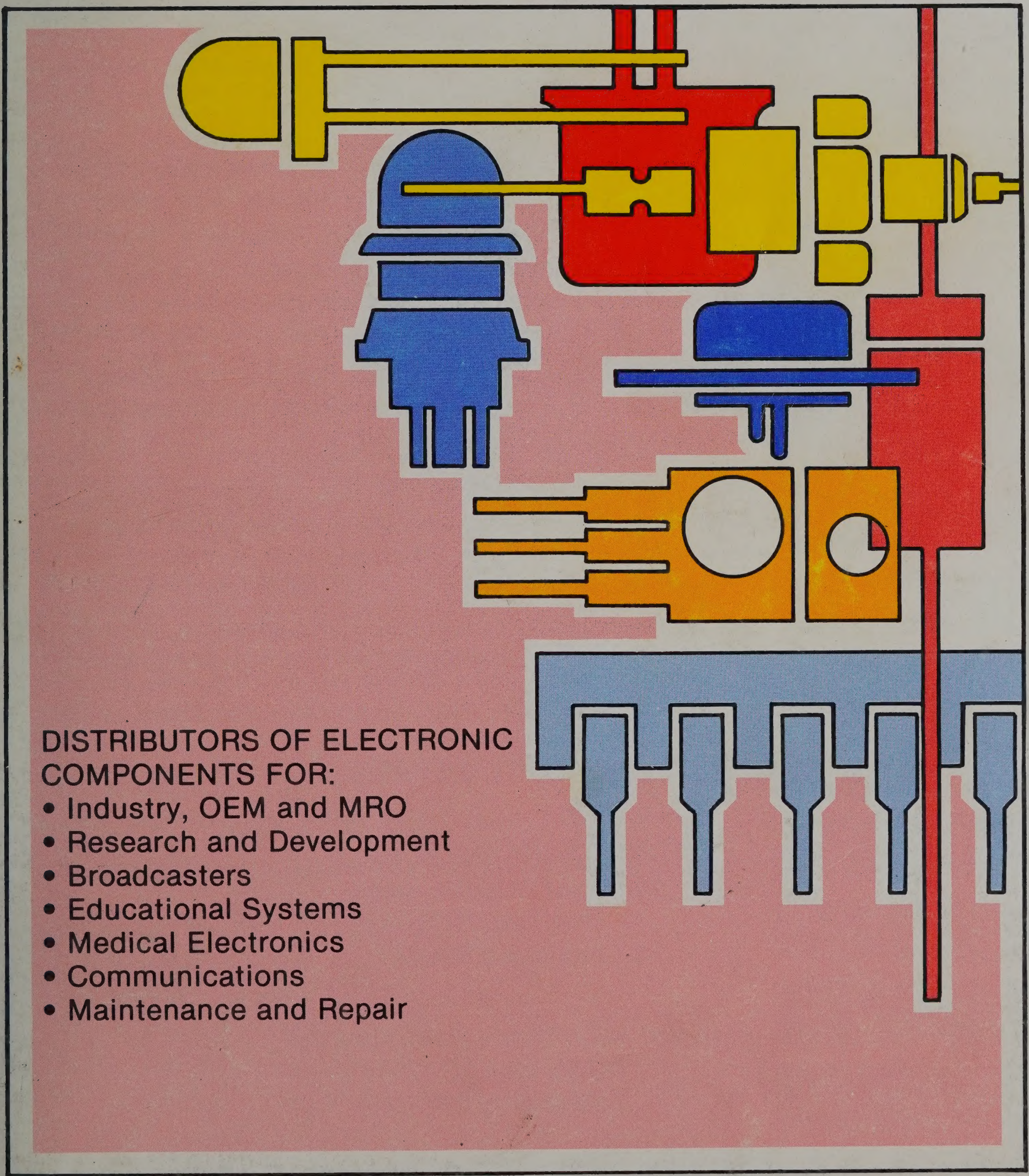

DISTRIBUTORS OF ELECTRONIC COMPONENTS FOR:
- Industry, OEM and MRO
- Research and Development
- Broadcasters
- Educational Systems
- Medical Electronics
- Communications
- Maintenance and Repair

LRP
electronics

LRP Electronics, Inc. (formerly Lima Radio Parts Company) was established fifty-three years ago in 1931. We are now the largest electronics distributor in Northwest Ohio.

INVENTORY: LRP Electronics is a Multi-line distributor with inventories tailored to the needs of our customers. We stock almost all major electronic components and equipment lines. Special items not normally stocked can be ordered for you. If you have recurring use for such an item, we will stock it for you.

PRODUCT INFORMATION: In addition to the manufacturers listed in this catalog, LRP Electronics carries the products of many more manufacturers. SEE BACK COVER.

If you need more detailed information than this catalog can provide, do not hesitate to request manufacturer's catalogs and bulletins. We will be happy to furnish the information you require.

PRICES: Prices shown were current in mid 1983, and should be used only for estimating. Where exact cost is required, call us for current prices and quotations.

SEE STATEMENT OF POLICY ON INSIDE BACK COVER.

LRP ELECTRONICS, INC.
150 West Grand Avenue
P.O. Box 1298
Lima, Ohio 45802

Phones: Main Office (419) 228-1220
WATS Line (800) 472-0976
Toledo only 866-6279

YOUR BUYING GUIDE TO EVERYTHING ELECTRONIC

This catalog was compiled with you in mind. Its purpose is to serve both the OEM customer as well as the engineer and purchasing agent in the MRO, R & D and replacement markets. It has product and company indexes in the rear of the catalog. Also available upon request is our current line card which lists our most important lines by product and manufacturer.

GUARANTEE: We offer the latest and best of the nationally advertised electronic equipment and components. Defective material will be repaired or replaced without charge within the guarantee terms specified by the manufacturer.

PRICES: All prices in this catalog were correct at press time. However, they are all **subject to change without notice.** Orders will be billed at current prices on date order is received.

PRODUCT INFORMATION: If you require more detailed information than our catalog can give on any particular item, manufacturers' catalogs and bulletins are available for the asking. Do not hesitate to request any you may need.

INVENTORY AND PRODUCT AVAILABILITY: Although this catalog is comprehensive, it does not contain every product and line available from us. During the course of a year many new lines and products are added to our inventory.

If you don't see what you want in this catalog, ask us about it. The item or items may be on our shelves or readily available from the factory. If you need a special type item not normally stocked, we will order it promptly and expedite it for you. Call us first . . . . . it's your best bet.

MERCHANDISE RETURNS: No merchandise is to be returned without prior authorization. Our invoice number and your purchase order number must be given. Returns may be subject to a restocking charge, and must be sent prepaid. Orders for special items are non-cancellable and non-returnable.

CHARGE ACCOUNTS: Open account terms are available to companies and organizations, as well as to government agencies. Companies may apply for open account by submitting trade and bank references.

PROMPT SERVICE & DELIVERY: A large and varied stock of most items featured in this catalog is always on hand for immediate delivery. Emergency requirements receive special attention.

QUICK FIND
THUMBTABS

Semiconductors
Tubes
Resistors & Controls
Capacitors
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Fuses & Breakers
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Batteries
Switches
Relays
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Hardware
Chemicals & Tools
Racks & Cabinets
Wire & Cable
Test Equipment
PA & Sound
Index

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INTERNATIONAL RECTIFIER
Semiconductors

BI-POLAR POWER TRANSISTORS

I-R No.	Pkg.	Power Watts	Ic Amps	VCEO Volts	Min. hFE	Ic @ Amps	Net Each, Lots 1-99	Net Each, Lots 100-999
NPN POLARITY								
IR701	TO-3	50	1.0	600	20	0.15	**$5.22**	**$4.18**
2N5838	TO-3	100	3.0	250	8	3.0	**1.96**	**1.45**
2N5839	TO-3	100	3.0	275	10	2.0	**2.16**	**1.60**
2N5840	TO-3	100	3.0	350	10	2.0	**2.43**	**1.80**
IR709	TO-3	50	3.0	600	2.5	2.0	**6.01**	**4.48**
IR708	TO-3	50	3.0	600	4	1.0	**5.43**	**4.33**
IR710	TO-3	50	3.0	600	7	1.0	**6.08**	**4.53**
IR410	TO-3	100	5.0	200	30	1.0	**2.50**	**1.85**
2N5804	TO-3	110	5.0	225	10	5.0	**4.40**	**3.10**
IR401	TO-3	100	5.0	300	20	0.5	**2.77**	**2.07**
2N6542	TO-3	100	5.0	300	7	3.0	**2.43**	**1.80**
2N5805	TO-3	110	5.0	300	10	5.0	**5.76**	**4.06**
IR413	TO-3	100	5.0	325	20	0.5	**2.55**	**1.87**
IR6542	TO-3	100	5.0	350	7	3.0	**2.43**	**1.80**
2N6543	TO-3	100	5.0	400	7	3.0	**2.97**	**2.20**
IR6543	TO-3	100	5.0	400	7	3.0	**2.70**	**2.10**
IR430	TO-3	125	7.0	300	15	2.5	**3.87**	**2.86**
IR411	TO-3	100	7.0	300	30	1.0	**2.75**	**2.05**
IR403	TO-3	125	7.0	325	4.4	3.5	**4.43**	**3.30**
IR402	TO-3	125	7.0	325	5	3.0	**4.16**	**3.09**
IR409	TO-3	125	7.0	325	15	1.0	**2.97**	**2.21**
IR431	TO-3	125	7.0	325	15	2.5	**4.07**	**3.01**
IR423	TO-3	125	7.0	325	30	1.0	**4.15**	**3.06**
IR424	TO-3	125	7.0	350	30	1.0	**4.34**	**3.23**
IR425	TO-3	125	7.0	400	30	1.0	**4.83**	**3.57**
2N6306	TO-3	125	8.0	250	4	8.0	**2.90**	**2.11**
2N6307	TO-3	125	8.0	300	4	8.0	**3.50**	**2.54**
IR13066	TO-220	80	8.0	300	8	2.0	**2.41**	**1.78**
IR13006	TO-220	80	8.0	300	8	2.0	**2.79**	**2.07**
2N6544	TO-3	125	8.0	300	7	5.0	**4.32**	**3.20**
IR6544	TO-3	125	8.0	350	7	5.0	**4.79**	**3.55**
2N6308	TO-3	125	8.0	350	4	8.0	**4.85**	**3.53**
2N6545	TO-3	125	8.0	400	7	5.0	**5.20**	**3.85**
IR6545	TO-3	125	8.0	400	7	5.0	**5.97**	**4.24**
IR13007	TO-220	80	8.0	400	8	2.0	**3.51**	**2.60**
2N6249	TO-3	175	10.0	200	10	10.0	**4.98**	**3.75**
IR515	TO-3	125	10.0	250	5	7.0	**3.41**	**2.54**
IR516	TO-3	125	10.0	250	7	7.0	**3.93**	**2.93**
IR517	TO-3	125	10.0	250	10	7.0	**4.59**	**3.41**
2N6573	TO-3	125	10.0	250	5	10.0	**4.96**	**3.69**
BUY69C	TO-3	125	10.0	250	15	0.5	**4.98**	**3.78**
2N6574	TO-3	125	10.0	275	5	10.0	**5.63**	**4.19**
IR518	TO-3	125	10.0	275	10	7.0	**5.24**	**3.90**
2N6250	TO-3	175	10.0	275	8.0	10.0	**5.90**	**4.38**
2N6575	TO-3	125	10.0	300	5	10.0	**16.20**	**12.00**
IR519	TO-3	125	10.0	300	10	7.0	**5.85**	**4.35**
BUY69B	TO-3	125	10.0	325	15	2.5	**5.70**	**4.20**
2N6251	TO-3	175	10.0	350	6	10.0	**5.99**	**4.65**
IR6582	TO-3	125	10.0	350	7	7.0	**7.36**	**5.20**
IR6583	TO-3	125	10.0	400	7	7.0	**7.80**	**5.53**
2N6546	TO-3	175	15.0	300	6	10.0	**6.95**	**5.15**
IR6546	TO-3	175	15.0	350	6	10.0	**8.07**	**6.02**
2N6547	TO-3	175	15.0	400	6	10.0	**8.51**	**6.30**
IR6547	TO-3	175	15.0	400	6	10.0	**10.60**	**7.90**
2N6338	TO-3	200	25.0	100	12	25.0	**5.06**	**3.75**
2N6339	TO-3	200	25.0	120	12	25.0	**6.08**	**4.50**
2N6340	TO-3	200	25.0	140	12	25.0	**11.48**	**8.50**
2N6341	TO-3	200	25.0	150	12	25.0	**13.16**	**9.75**
PNP POLARITY								
2N6029	TO-3	200	16.0	100	25	8.0	**$4.73**	**$3.50**
2N6030	TO-3	200	16.0	120	20	8.0	**5.00**	**3.70**
2N6031	TO-3	200	16.0	140	15	8.0	**5.70**	**4.25**
2N5883	TO-3	200	25.0	60	4	25.0	**3.31**	**2.45**
2N5884	TO-3	200	25.0	80	4	25.0	**4.05**	**3.00**
2N5683	TO-3*	300	50.0	60	5	50.0	**13.50**	**10.00**
2N5684	TO-3*	300	50.0	80	5	50.0	**15.75**	**11.67**

*Modified.

POWER DARLINGTON TRANSISTORS

I-R No.	Pkg.	Power Watts	Ic Amps	VCEO Volts	Min. hFE	Ic @ Amps	Net Each, Lots 1-99	Net Each, Lots 100-999
IR5251	TO-3	100	10	350	10	10	**$4.96**	**$3.69**
IR6251	TO-3	100	10	350	100	5	**6.64**	**4.94**
IR5252	TO-3	100	10	400	10	10	**5.63**	**4.19**
IR6252	TO-3	100	10	400	100	5	**7.07**	**5.26**
IR5253	TO-3	100	10	450	10	10	**7.98**	**5.94**
IR6253	TO-3	100	10	450	100	5	**9.93**	**7.39**
IR4039	TO-3	100	15	300	5	15	**5.33**	**3.96**
IR4041	TO-3	100	15	300	8	15	**6.22**	**4.63**
IR5000	TO-3	125	15	300	15	15	**6.05**	**4.50**
IR6000	TO-3	125	15	300	50	10	**7.56**	**5.63**
IR7000	TO-61#	125	15	300	60	10	**46.20**	**33.04**
IR4040	TO-3	125	15	325	8	15	**7.19**	**5.35**
IR4045	TO-3	125	15	325	15	15	**7.88**	**5.86**
IR4059	TO-3	125	15	350	5	15	**6.64**	**4.94**
IR4061	TO-3	100	15	350	8	15	**7.02**	**5.23**
IR4050	TO-3	125	15	350	8	15	**7.56**	**5.63**
IR5001	TO-3	125	15	350	15	15	**6.27**	**4.66**
IR4055	TO-3	125	15	350	15	15	**7.88**	**5.86**
IR6001	TO-3	125	15	350	50	10	**7.98**	**5.94**
IR7001	TO-61#	125	15	350	50	10	**49.50**	**35.40**
IR4060	TO-3	125	15	400	8	15	**7.56**	**5.63**
IR4065	TO-3	125	15	400	15	15	**8.52**	**6.34**
IR5002	TO-3	125	15	400	15	15	**6.80**	**5.06**
IR6002	TO-3	125	15	400	50	10	**9.91**	**7.38**
IR7002	TO-61#	125	15	400	50	10	**52.80**	**37.76**
IR6060	TO-3	125	20	300	30	15	**7.98**	**5.94**
IR5060	TO-3	125	20	300	20	15	**5.80**	**4.31**
IR6061	TO-3	125	20	350	30	15	**8.40**	**6.25**
IR5061	TO-3	125	20	350	20	15	**6.05**	**4.50**
IR6062	TO-3	125	20	400	30	15	**10.33**	**7.69**
IR5062	TO-3	125	20	400	20	15	**7.22**	**5.38**

#Isolated.

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INTERNATIONAL RECTIFIER
Semiconductors

HEXFET™ POWER MOSFET TRANSISTORS IN

TO-3 PACKAGE

I-R No.	V_{DS} Volts	I_C Amps	$R_{DS(ON)}$ Ohms	gfs	Power Watts	Net Each, Lots	
						1-24	25-99
N CHANNEL							
IRF450	500	10.0	0.4	10.0	150	**$99.00**	**$81.18**
IRF452	500	8.0	0.5	10.0	150	**94.00**	**77.08**
IRF430	500	3.5	1.5	2.5	75	**26.30**	**21.57**
IRF432	500	3.0	2.0	2.5	75	**24.20**	**19.84**
IRF420	500	2.0	3.0	1.75	40	**17.60**	**14.43**
IRF422	500	1.5	4.0	1.75	40	**16.43**	**13.47**
IRF451	450	10.0	0.4	10.0	150	**85.00**	**69.70**
IRF453	450	8.0	0.5	10.0	150	**82.00**	**67.24**
IRF431	450	3.5	1.5	2.5	75	**16.00**	**13.12**
IRF433	450	3.0	2.0	2.5	75	**14.80**	**12.14**
IRF421	450	2.0	3.0	1.75	40	**10.68**	**8.76**
IRF423	450	1.5	4.0	1.75	40	**9.78**	**8.02**
IRF350	400	11.0	0.3	9.0	150	**80.80**	**66.26**
IRF352	400	10.0	0.4	9.0	150	**76.00**	**62.32**
IRF330	400	4.0	1.0	3.5	75	**17.20**	**14.10**
IRF332	400	3.5	1.5	3.5	75	**14.60**	**11.97**
IRF320	400	3.0	1.8	2.0	40	**11.50**	**9.43**
IRF322	400	2.5	2.5	2.0	40	**9.90**	**8.12**
IRF710	400	1.2	3.6	1.0	20	**6.24**	**5.12**
IRF712	400	0.9	5.0	1.0	20	**5.50**	**4.51**
IRF351	350	11.0	0.3	9.0	150	**71.30**	**58.47**
IRF353	350	10.0	0.4	9.0	150	**66.50**	**54.53**
IRF331	350	4.0	1.0	3.5	75	**13.80**	**11.32**
IRF333	350	3.5	1.5	3.5	75	**12.90**	**10.58**
IRF321	350	3.0	1.8	2.0	40	**9.20**	**7.54**
IRF323	350	2.5	2.5	2.0	40	**8.50**	**6.97**
IRF711	350	1.2	3.6	1.0	20	**5.01**	**4.11**
IRF713	350	0.9	5.0	1.0	20	**4.62**	**3.79**
IRF250	200	20.0	0.09	12.0	150	**76.50**	**62.36**
IRF252	200	17.0	0.12	12.0	150	**71.25**	**58.43**
IRF230	200	7.0	0.4	4.5	75	**16.50**	**13.53**
IRF232	200	6.0	0.6	4.5	75	**14.00**	**11.48**
IRF220	200	4.0	0.8	2.3	40	**11.20**	**9.18**
IRF222	200	3.5	1.2	2.3	40	**9.70**	**7.95**
IRF610	200	2.0	1.5	1.2	20	**6.11**	**5.01**
IRF612	200	1.5	2.4	1.2	20	**5.27**	**4.32**
IRF251	150	20.0	0.09	12.0	150	**68.40**	**56.09**
IRF253	150	17.0	0.12	12.0	150	**64.15**	**52.60**
IRF231	150	7.0	0.4	4.5	75	**13.20**	**10.82**
IRF233	150	6.0	0.6	4.5	75	**13.00**	**10.66**
IRF221	150	4.0	0.8	2.3	40	**9.00**	**7.38**
IRF223	150	3.5	1.2	2.3	40	**8.30**	**6.81**
IRF611	150	2.0	1.5	1.2	20	**4.88**	**4.00**
IRF613	150	1.5	2.4	1.2	20	**4.49**	**3.68**
IRF150	100	28.0	0.06	10.0	150	**71.30**	**58.47**
IRF152	100	24.0	0.08	10.0	150	**66.50**	**54.53**
IRF130	100	12.0	0.18	5.0	75	**15.80**	**12.96**
IRF132	100	10.0	0.25	5.0	75	**15.20**	**12.46**
IRF120	100	6.0	0.3	2.5	40	**10.70**	**8.77**
IRF122	100	5.0	0.4	2.5	40	**10.10**	**8.28**
IRF510	100	3.0	0.6	1.5	20	**5.79**	**4.75**
IRF511	100	2.5	0.8	1.5	20	**5.40**	**4.43**
IRF151	60	28.0	0.06	10.0	150	**65.50**	**53.71**
IRF153	60	24.0	0.8	10.0	150	**61.80**	**50.68**
IRF131	60	12.0	0.18	5.0	75	**12.70**	**10.41**
IRF133	60	10.0	0.25	5.0	75	**12.50**	**10.25**
IRF121	60	6.0	0.3	2.5	40	**9.50**	**7.79**
IRF123	60	5.0	0.4	2.5	40	**8.90**	**7.30**
IRF511	60	3.0	0.6	1.5	20	**4.62**	**3.79**
IRF513	60	2.5	0.8	1.5	20	**4.29**	**3.52**
P CHANNEL							
IRF9130	100	8.0	0.3	3.5	75	**$18.42**	**$15.10**
IRF9132	100	7.0	0.4	3.5	75	**17.90**	**14.68**
IRF9131	60	8.0	0.3	3.5	75	**14.70**	**12.05**
IRF9133	60	7.0	0.4	3.5	75	**14.60**	**11.97**

TO-220AB PACKAGE

I-R No.	V_{DS} Volts	I_C Amps	$R_{DS(ON)}$ Ohms	gfs	Power Watts	Net Each, Lots	
						1-24	25-99
N CHANNEL							
IRF830	500	3.0	1.5	2.5	75	**$22.10**	**$18.12**
IRF832	500	2.5	2.0	2.5	75	**20.30**	**16.65**
IRF820	500	1.5	3.0	1.75	40	**14.69**	**12.05**
IRF822	500	1.0	4.0	1.75	40	**13.78**	**11.30**
IRF831	450	3.0	1.5	2.5	75	**13.40**	**10.99**
IRF833	450	2.5	2.0	2.5	75	**12.40**	**10.17**
IRF821	450	1.5	3.0	1.75	40	**8.93**	**7.32**
IRF823	450	1.0	4.0	1.75	40	**8.17**	**6.70**
IRF730	400	3.5	1.0	3.5	75	**14.30**	**11.73**
IRF732	400	3.0	1.5	3.5	75	**12.10**	**9.92**
IRF720	400	2.5	1.8	2.0	40	**9.60**	**7.87**
IRF722	400	2.0	2.5	2.0	40	**8.30**	**6.81**
IRF731	350	3.5	1.0	3.5	75	**11.40**	**9.35**
IRF733	350	3.0	1.5	3.5	75	**10.70**	**8.77**
IRF721	350	2.5	1.8	2.0	40	**7.70**	**6.31**
IRF723	350	2.0	2.5	2.0	40	**7.10**	**5.82**
IRF630	200	6.0	0.4	4.5	75	**13.80**	**11.32**
IRF632	200	5.0	0.6	4.5	75	**13.00**	**10.66**
IRF620	200	3.5	0.8	2.3	40	**9.40**	**7.71**
IRF622	200	3.0	1.2	2.3	40	**8.10**	**6.64**
IRF631	150	6.0	0.4	4.5	75	**11.00**	**9.02**
IRF633	150	5.0	0.6	4.5	75	**10.80**	**8.86**
IRF621	150	3.5	0.8	2.3	40	**7.50**	**6.15**
IRF623	150	3.0	1.2	2.3	40	**6.90**	**5.66**
IRF530	100	10.0	0.18	5.0	75	**13.30**	**10.92**
IRF532	100	8.0	0.25	5.0	75	**12.80**	**10.50**
IRF520	100	5.0	0.3	2.5	40	**8.90**	**7.30**
IRF522	100	4.0	0.4	2.5	40	**8.30**	**6.81**
IRF531	60	10.0	0.18	5.0	75	**10.50**	**8.61**
IRF533	60	8.0	0.25	5.0	75	**10.50**	**8.61**
IRF521	60	5.0	0.3	2.5	40	**7.10**	**5.82**
IRF523	60	4.0	0.4	2.5	40	**6.60**	**5.41**
P CHANNEL							
IRF9530	100	7.0	0.3	3.5	75	**$15.58**	**$12.78**
IRF9532	100	6.0	0.4	3.5	75	**15.00**	**12.30**
IRF9520	100	4.0	0.6	1.8	40	**10.00**	**8.20**
IRF9522	100	3.5	0.8	1.8	40	**9.60**	**7.87**
IRF9531	60	7.0	0.3	3.5	75	**12.40**	**10.17**
IRF9533	60	6.0	0.4	3.5	75	**12.20**	**10.00**
IRF9521	60	4.0	0.6	1.8	40	**8.00**	**6.56**
IRF9523	60	3.5	0.8	1.8	40	**7.90**	**6.48**

I-R No.	V_{DS} Volts	I_C Amps	$R_{DS(ON)}$ Ohms	gfs	Power Watts	Net Each, Lots	
						1-24	25-99
4-PIN DUAL-INLINE-PACKAGE							
N-CHANNEL							
IRFD110	100	1.0	0.6	1.2	1.0	**$5.21**	**$4.27**
IRFD112	100	0.8	0.8	1.2	1.0	**4.86**	**3.99**
IRFD111	60	1.0	0.6	1.2	1.0	**4.16**	**3.41**
IRFD113	60	0.8	0.8	1.2	1.0	**3.86**	**3.17**
P-CHANNEL							
IRFD9120	100	1.0	0.6	1.2	1.0	**$9.00**	**$7.38**
IRFD9122	100	0.8	0.8	1.2	1.0	**8.64**	**7.08**
IRFD9121	60	1.0	0.6	1.2	1.0	**7.20**	**5.90**
IRFD9123	60	0.8	0.8	1.2	1.0	**7.11**	**5.83**
16-PIN DUAL-INLINE-PACKAGE							
N-CHANNEL							
IRFE110	100	1.0	0.6	1.2	4.0	**$21.88**	**$17.94**
IRFE112	100	0.8	0.8	1.2	4.0	**20.41**	**16.74**
IRFE111	60	1.0	0.6	1.2	4.0	**17.47**	**14.33**
IRFE113	60	0.8	0.8	1.2	4.0	**16.21**	**13.29**
P-CHANNEL							
IRFE9120	100	1.0	0.6	1.2	4.0	**$37.80**	**$31.00**
IRFE9122	100	0.8	0.8	1.2	4.0	**36.29**	**29.76**
IRFE9121	60	1.0	0.6	1.2	4.0	**30.24**	**24.80**
IRFE9123	60	0.8	0.8	1.2	4.0	**29.86**	**24.49**
COMBINATION N- AND P-CHANNELS							
IRFE5110	100	1.0	0.6	1.2	4.0	**$29.85**	**$24.47**
IRFE5112	100	0.8	0.8	1.2	4.0	**28.35**	**23.25**
IRFE5111	60	1.0	0.6	1.2	4.0	**23.86**	**19.57**
IRFE5113	60	0.8	0.8	1.2	4.0	**23.04**	**18.89**

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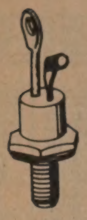
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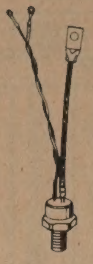
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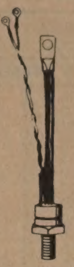
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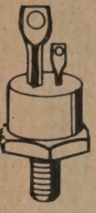
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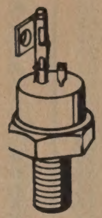
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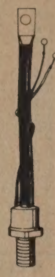
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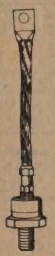
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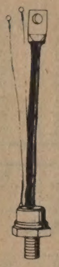
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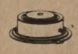
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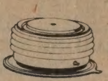
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T_C and I_{GT} values are maximum.

25 AMP rms STUD (FIG. A)

I_T = 16 A avg. at T_C = 65° C. I_{GT} = 40 mA at 25° C. dv/dt = 20 V/µs typical.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
2N681	25	**$ 4.13**	**$ 3.10**
2N682	50	**4.13**	**3.10**
2N683	100	**4.13**	**3.10**
2N685	200	**5.51**	**4.04**
2N687	300	**6.30**	**4.92**
2N688	400	**7.33**	**5.78**
2N689	500	**7.77**	**6.10**
2N690	600	**8.20**	**6.49**
2N691	700	**9.03**	**7.17**
2N692	800	**11.47**	**9.09**

35 AMP rms STUD (FIG. A)

I_T = 22 A avg. at 40° C. I_{GT} = 40 mA at 25° C. dv/dt = 100V/µs typical.

		1-99	100-999
2N5204	600	**$ 9.75**	**$ 6.86**
2N5205	800	**14.79**	**7.84**
2N5206	1000	**19.35**	**10.29**
2N5207	1200	**25.79**	**13.13**

35 AMP rms STUD (FIG. A)

I_T = 22.3 A avg. at 65° C. I_{GT} = 40 mA at 25° C. dv/dt = 100 V/µs typical.

16RIA10	100	**$ 4.89**	**$ 3.48**
16RIA20	200	**6.56**	**4.75**
16RIA40	400	**8.56**	**6.20**
16RIA60	600	**10.10**	**7.27**
16RIA80	800	**11.51**	**8.21**
16RIA100	1000	**13.81**	**9.76**
16RIA110	1100	**14.88**	**10.49**
16RIA120	1200	**17.09**	**12.07**

*JAN or JANTX type available.
★ Price available on request.

35 AMP rms STUD (FIG. A)

I_T = 22 A avg. at 85° C. I_{GT} = 40 mA at 25° C. dv/dt = 100 V/µs typical.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
22RIA10	100	**$ 5.15**	**$ 3.66**
22RIA20	200	**6.91**	**5.00**
22RIA40	400	**9.01**	**6.53**
22RIA60	600	**10.60**	**7.65**
22RIA80	800	**12.10**	**8.60**
22RIA100	1000	**14.55**	**10.29**
22RIA110	1100	**15.65**	**11.05**
22RIA120	1200	**17.60**	**12.40**

40 AMP rms STUD (FIG. A)

I_T = 25° A avg. at 85° C. I_{GT} = 40 mA at 25° C. dv/dt = 100V/µs typical.

25RIA10	100	**$ 5.41**	**$ 3.84**
25RIA20	200	**7.26**	**5.25**
25RIA40	400	**9.46**	**6.86**
25RIA60	600	**11.16**	**8.03**
25RIA80	800	**12.73**	**9.07**
25RIA100	1000	**15.27**	**10.78**
25RIA110	1100	**16.44**	**11.59**
25RIA120	1200	**18.48**	**13.05**

80 AMP rms STUD (FIG. D)

I_T = 50 A avg. at 94° C. I_{GT} = 100 mA at 25° C. dv/dt = 200 V/µs minimum.

50RIA10	100	**$17.56**	**$10.55**
50RIA20	200	**18.09**	**10.87**
50RIA40	400	**20.27**	**12.18**
50RIA60	600	**22.57**	**15.57**
50RIA80	800	**25.92**	**21.00**
50RIA100	1000	**35.01**	**26.00**
50RIA110	1100	**43.99**	**31.87**
50RIA120	1200	**43.99**	**31.87**

110 AMP rms STUD (FIG. B)

I_T = 70 A avg. at 62° C. I_{GT} = 70 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
71RC5A	50	**$22.18**	**$13.32**
71RC10A	100	**24.47**	**14.70**
71RC20A	200	**29.73**	**17.79**
71RC30A	300	**35.21**	**19.61**
71RC40A	400	**40.71**	**24.41**
71RC60A	600	**50.97**	**32.16**
71RC80A	800	**61.52**	**38.82**
71RC100A	1000	**73.75**	**43.50**
71RC110A	1100	**79.94**	**46.69**
71RC120A	1200	**84.88**	**50.06**

110 AMP rms STUD (FIG. B)

I_T = 70 A avg. at 62° C. I_{GT} = 70 mA at 25° C. dv/dt = 20 V/µs typical.

2N1909	25	**$20.01**	**$12.01**
2N1910*	50	**22.19**	**13.33**
2N1911*	100	**24.47**	**14.70**
2N1912	150	**27.22**	**16.35**
2N1913*	200	**29.61**	**17.79**
2N1914	250	**32.70**	**19.61**
2N1915*	300	**35.21**	**21.16**
2N1916*	400	**40.71**	**24.41**
2N1805*	500	**47.92**	**28.82**
2N1806*	600	**53.46**	**32.27**
2N1807	700	**64.98**	**38.83**

110 AMP rms STUD (FIG. C)

I_T = 70 A avg. at 62° C. I_{GT} = 110 mA at 25° C. dv/dt = 20 V/µs minimum.

2N3091*	600	**$51.20**	**$30.72**
2N3092	700	**58.75**	**35.25**
2N2093*	800	**64.03**	**38.43**
2N3094	900	**70.39**	**42.26**
2N3095*	1000	**76.86**	**46.14**
2N3096	1100	**82.03**	**49.22**
2N3097*	1200	**88.50**	**53.10**
2N3098	1300	**96.05**	**57.62**

110 AMP rms STUD (FIG. C)

I_T = 70 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

71RB50	500	**$ 37.10**	**$ 23.36**
71RB60	600	**46.54**	**28.18**
71RB80	800	**58.99**	**35.39**
71RB100	1000	**71.22**	**42.33**
71RB120	1200	**71.07**	**48.72**
71RB140	1400	**100.62**	**59.18**

110 AMP rms STUD (FIG. E)

I_T = 70 A avg. at 65° C. I_{GT} = 70 mA at 25° C. dv/dt = 20 V/µs typical.

2N1792*	50	**$22.19**	**$13.33**
2N1793*	100	**24.47**	**14.70**
2N1794	150	**27.22**	**16.35**
2N1795*	200	**29.73**	**17.79**

110 AMP rms STUD (FIG. E) (Cont'd)

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
2N1796	250	**$32.70**	**$19.61**
2N1797*	300	**35.21**	**21.16**
2N1798*	400	**40.71**	**24.41**
2N1799*	500	**45.84**	**28.28**
2N1800*	600	**50.97**	**32.16**
2N1801	700	**68.61**	**43.29**
2N1802	800	**75.72**	**44.66**
2N1803	900	**80.55**	**47.05**
2N1804	1000	**85.22**	**50.26**

110 AMP rms STUD (FIG. C)

I_T = 70 A avg. at 80° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

71RA30	300	**$ 40.77**	**$26.67**
71RA50	500	**46.03**	**27.60**
71RA60	600	**51.20**	**30.72**
71RA80	800	**64.02**	**38.43**
71RA100	1000	**76.87**	**46.14**
71RA120	1200	**88.50**	**53.10**
71RA140	1400	**109.60**	**68.47**

110 AMP rms STUD (FIG. B)

I_T = 70 A avg. at 85° C. I_{GT} = 70 mA at 25° C. dv/dt = 200 V/µs minimum.

71RC10B	100	**$40.74**	**$24.48**
71RC20B	200	**44.19**	**26.22**
71RC30B	300	**38.96**	**23.35**
71RC40B	400	**50.02**	**30.02**
71RC50B	500	**69.84**	**41.86**
71RC60B	600	**87.30**	**52.33**

110 AMP rms STUD (FIG. B)

I_T = 70 A avg. at 85° C. I_{GT} = 70 mA at 25° C. dv/dt = 20 V/µs typical.

2N2023	25	**$28.21**	**$16.94**
2N2024*	50	**36.48**	**21.89**
2N2025*	100	**41.16**	**24.72**
2N2026	150	**44.65**	**26.79**
2N2027*	200	**44.65**	**26.79**
2N2028	250	**45.85**	**27.50**
2N2029*	300	**47.04**	**28.21**
2N2030*	400	**50.53**	**30.33**

110 AMP rms STUD (FIG. C)

I_T = 70 A avg. at 105° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 v/µs minimum.

71REH60	600	**$ 56.32**	**$33.79**
71REH80	800	**70.42**	**42.27**
71REH100	1000	**84.56**	**50.75**
71REH110	1100	**86.70**	**54.19**
71REH120	1200	**97.35**	**58.41**
71REH130	1300	**101.51**	**63.45**

125 AMP rms STUD (FIG. C)

I_T = 80 A avg. at 85° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

81RLA60	600	**$ 53.76**	**$32.26**
81RLA80	800	**67.22**	**40.35**
81RLA100	1000	**80.71**	**48.45**
81RLA120	1200	**92.93**	**55.76**
81RLA140	1400	**115.08**	**71.89**
81RLA150	1500	★	★
81RLA160	1600	★	★

140 AMP rms STUD (FIG. B)

I_T = 90 A avg. at 85° C. I_{GT} = 100 mA at 25° C. dv/dt = 200 V/µs minimum.

91RC5	50	**$24.21**	**$14.03**
91RC10	100	**25.27**	**14.96**
91RC20	200	**30.23**	**17.88**
91RC30	300	**35.40**	**20.96**
91RC40	400	**41.25**	**24.48**
91RC60	600	**50.11**	**29.59**
91RC80	800	**64.02**	**38.39**
91RC100	1000	**76.87**	**46.15**
91RC110	1100	**82.28**	**49.78**
91RC120	1200	**88.50**	**53.13**

170 AMP STUD (FIG. C)

I_T = 110 A avg. at 80° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

		1-4	5-9
111RLA60	600	**$ 80.96**	**$62.28**
111RLA80	800	**89.06**	**68.50**
111RLA100	1000	**97.15**	**74.73**
111RLA110	1100	**105.25**	**85.51**
111RLA120	1200	**113.34**	**87.19**

235 AMP rms STUD (FIG. F)

I_T = 150 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
151RC10	100	**$ 45.14**	**$27.07**
151RC20	200	**48.49**	**29.11**
151RC30	300	**53.09**	**31.88**
151RC40	400	**58.73**	**35.22**
151RC60	600	**74.51**	**44.73**
151RC80	800	**104.92**	**62.96**

Listing continued on following page

INTERNATIONAL RECTIFIER
Silicon Controlled Rectifiers

SILICON CONTROLLED RECTIFIERS (Cont'd)

235 AMP rms STUD (FIG. G)
I_T = 150 A avg. at 75° C. I_{GT} = 200 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
151RB60	600	$ 79.04	$ 47.47
151RB80	800	97.90	58.90
151RB100	1000	110.39	66.13
151RB120	1200	124.33	74.75
151RB140	1400	142.98	85.98
151RB150	1500	164.43	98,87
151RB160	1600	189.09	113.95

235 AMP rms STUD (FIG. G)
I_T = 150 A avg. at 85° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

151RA30	300	$ 59.37	$ 37.11
151RA60	600	83.56	50.17
151RA80	800	101.79	61.05
151RA100	1000	119.93	72.16
151RA120	1200	135.14	81.54
151RA140	1400	156.37	94.02
151RA150	1500	182.87	108.13
151RA160	1600	206.80	124.35

275 AMP rms STUD (FIG. F)
I_T = 175 A avg. at 88° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

175RC10	100	$52.91	$31.57
175RC20	200	56.87	43.21
175RC30	300	62.15	37.35
175RC40	400	68.75	41.08
175RC60	600	87.23	52.36
175RC80	800	92.60	55.58

275 AMP rms STUD (FIG. G)
I_T = 175 A avg. at 90° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

175RA60	600	$107.55	$ 63.54
175RA80	800	123.30	74.98
175RA100	1000	148.07	88.19
175RA120	1200	171.61	103.62
175RA140	1400	209.06	125.33
175RA150	1500	221.74	132.44
175RA160	1600	233.41	140.56

275 AMP rms HOCKEY-PUK (FIG. H)
I_T = 175 A avg. at 85° C. I_{GT} = 200 mA at 25° C. dv/dt = 200 V/µs minimum.

175PA60	600	$ 59.40	$ 37.13
175PA80	800	74.80	46.75
175PA100	1000	90.20	56.38
175PA120	1200	110.00	68.75
175PA140	1400	125.40	78.38
175PA150	1500	149.60	93.50
175PA160	1600	176.00	110.00

400 AMP rms HOCKEY-PUK (FIG. H)
I_T = 250 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 20 V/µs minimum.

250PAC10	100	$30.40	$20.90
250PAC20	200	32.00	22.00
250PAC30	300	36.00	24.75
250PAC40	400	41.60	28.60
250PAC50	500	49.20	33.83
250PAC60	600	56.80	36.85

400 AMP rms HOCKEY-PUK (FIG. H)
I_T = 250 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

250PA60	600	$ 65.75	$39.45
250PA80	800	83.28	50.03
250PA100	1000	100.83	60.51
250PA120	1200	120.50	72.36
250PA140	1400	138.10	83.30
250PA150	1500	⋆	⋆
250PA160	1600	⋆	⋆

⋆ Prices available on request.

400 AMP rms STUD (FIG. I)
I_T = 250 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 v/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
250RA10	100	$ 72.50	$ 43.50
250RA20	200	73.00	43.90
250RA30	300	80.00	48.00
250RA40	400	92.50	55.70
250RA60	600	131.12	78.50
250RA80	800	153.45	91.74
250RA100	1000	173.62	103.40
250RA120	1200	200.09	120.00
250RA140	1400	225.23	135.30
250RA150	1500	237.60	143.00
250RA160	1600	249.70	151.00
250RA170	1700	265.32	159.50
250RA180	1800	278.58	167.48
250RA190	1900	292.51	175.88
250RA200	2000	307.14	184.64

470 AMP rms STUD (FIG. I)
I_T = 300 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
300RB10	100	$ 67.27	$ 43.70
300RB20	200	77.62	48.51
300RB30	300	91.27	54.97
300RB40	400	104.13	63.60
300RB60	600	141.33	83.01
300RB80	800	167.63	100.36
300RB100	1000	193.07	116.42
300RB120	1200	224.22	135.83
300RB140	1400	245.98	148.96
300RB150	1500	260.68	156.80
300RB160	1600	275.38	164.64
300RB170	1700	295.47	176.89
300RB180	1800	315.56	189.14
300RB190	1900	339.24	203.34
300RB200	2000	364.70	218.59

470 AMP rms STUD (FIG. I)
I_T = 300 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

300RA10	100	$ 68.64	$ 44.59
300RA20	200	79.20	49.50
300RA30	300	93.13	56.10
300RA40	400	106.26	64.90
300RA60	600	144.21	84.70
300RA80	800	171.05	102.41
300RA100	1000	197.01	118.80
300RA120	1200	228.80	138.60
300RA130	1300	244.20	146.30
300RA140	1400	251.00	152.00
300RA150	1500	266.00	160.00
300RA160	1600	281.00	168.00
300RA170	1700	301.50	180.50
300RA180	1800	322.00	193.00

470 AMP rms HOCKEY-PUK (FIG. H)
I_T = 300 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 20 v/µs minimum.

300PAC10	100	$41.09	$24.70
300PAC20	200	43.56	26.40
300PAC30	300	48.62	29.21
300PAC40	400	56.38	33.83
300PAC50	500	66.72	40.04
300PAC60	600	76.84	46.15

470 AMP rms HOCKEY-PUK (FIG. H)
I_T = 300 A avg. at 77° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

300PA60	600	$ 76.88	$ 48.05
300PA80	800	111.94	69.96
300PA100	1000	134.32	83.95
300PA120	1200	147.38	92.11
300PA140	1400	167.09	104.43
300PA150	1500	⋆	⋆
300PA160	1600	⋆	⋆

510 AMP rms HOCKEY-PUK (FIG. H)
I_T = 325 A avg. at 74° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

325PAH50	500	$ 71.42	$44.53
325PAH60	600	82.26	51.41
325PAH80	800	119.78	74.86
325PAH100	1000	143.72	89.83
325PAH110	1100	150.71	94.20
325PAH120	1200	157.70	98.56

550 AMP rms STUD (FIG. I)
I_T = 350 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

350RC10	100	$ 90.29	$56.43
350RC20	200	96.62	60.39
350RC30	300	102.96	64.35
350RC40	400	112.46	70.29
350RC60	600	142.46	85.55

550 AMP rms STUD (FIG. I)
I_T = 350 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

350RA10	100	$ 85.00	$ 51.25
350RA20	200	86.00	51.50
350RA30	300	105.00	63.50
350RA40	400	120.25	72.30
350RA60	600	156.80	93.94
350RA80	800	183.70	109.95
350RA100	1000	210.21	126.61
350RA120	1200	267.82	153.48
350RA140	1400	291.50	174.90
350RA150	1500	298.70	178.80
350RA160	1600	305.90	182.70
350RA170	1700	327.85	195.85
350RA180	1800	349.80	209.00

660 AMP rms HOCKEY-PUK (FIG. J)
I_T = 420 A avg. at 68° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

420PB30	300	$ 79.55	$ 50.39
420PB50	500	83.77	53.14
420PB60	600	91.44	55.03

660 AMP rms HOCKEY-PUK (FIG. J) (Cont'd)

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
420PB80	800	$114.82	$ 68.40
420PB100	1000	134.81	81.04
420PB120	1200	153.53	92.07
420PB140	1400	170.47	102.59
420PB150	1500	181.25	111.40
420PB160	1600	188.74	118.44
420PB170	1700	198.94	124.84
420PB180	1800	209.69	131.59
420PB190	1900	221.02	138.70
420PB200	2000	232.96	146.19

740 AMP rms HOCKEY-PUK (FIG. J)
I_T = 470 A avg. at 67° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

470PB30	300	$ 83.74	$ 53.17
470PB50	500	88.18	55.95
470PB60	600	96.25	57.93
470PB80	800	120.86	72.01
470PB100	1000	141.90	85.29
470PB120	1200	161.61	96.92
470PB140	1400	179.44	108.00
470PB150	1500	190.80	117.25
470PB160	1600	198.67	124.67
470PB170	1700	209.39	131.40
470PB180	1800	220.69	138.49
470PB190	1900	232.60	145.96
470PB200	2000	245.15	153.84

865 AMP rms HOCKEY-PUK (FIG. J)
I_T = 550 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

540PB30	300	$85.95	$54.57
540PB50	500	90.50	57.42
540PB60	600	98.73	59.22

865 AMP rms HOCKEY-PUK (FIG. J)
I_T = 550 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

550PB30	300	$ 87.66	$ 55.66
550PB50	500	90.95	57.62
550PB60	600	101.33	60.80
550PB80	800	126.89	76.12
550PB100	1000	149.00	89.38
550PB120	1200	170.61	101.97
550PB140	1400	191.57	114.90
550PB150	1500	203.23	121.94
550PB160	1600	214.23	128.48
550PB170	1700	225.83	135.44
550PB180	1800	238.05	142.77

1260 AMP rms HOCKEY-PUK (FIG. J)
I_T = 800 A avg. at 74° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

700PK50	500	⋆	⋆
700PK60	600	⋆	⋆
700PK80	800	⋆	⋆
700PK100	1000	⋆	⋆
700PK120	1200	⋆	⋆
700PK140	1400	$ 282.88	$176.90
700PK160	1600	320.95	200.60
700PK180	1800	387.13	241.96
700PK200	2000	453.41	272.21
700PK210	2100	497.91	298.37
700PK220	2200	556.05	333.57
700PK230	2300	609.71	364.92
700PK240	2400	681.42	403.95
700PK250	2500	818.24	476.75
700PK260	2600	908.26	529.20
700PK270	2700	1008.17	587.41
700PK280	2800	1119.07	652.03
700PK290	2900	1242.18	723.75
700PK300	3000	1378.83	803.37

1600 AMP rms HOCKEY-PUK (FIG. J)
I_T = 1000 A avg. at 76° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

850PK50	500	⋆	⋆
850PK60	600	⋆	⋆
850PK80	800	⋆	⋆
850PK100	1000	⋆	⋆
850PK120	1200	$299.27	$180.45
850PK140	1400	305.87	183.76
850PK150	1500	326.78	194.76
850PK160	1600	348.78	206.86
850PK180	1800	414.80	258.58
850PK200	2000	500.62	300.39
850PK210	2100	549.56	329.76
850PK220	2200	607.78	364.69
850PK230	2300	672.89	403.71
850PK240	2400	745.11	447.05

1900 AMP rms HOCKEY-PUK (FIG. J)
I_T = 1200 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

1200PN50	500	$390.83	$234.40
1200PN60	600	405.50	243.20
1200PN80	800	412.34	247.35
1200PN100	1000	464.16	278.39
1200PN120	1200	501.31	300.88
1200PN140	1400	537.49	322.39

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SILICON CONTROLLED RECTIFIERS (Cont'd)

1900 AMP rms HOCKEY-PUK (FIG. J) (Cont'd)

I_T = 1200 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
1200PN150	1500	$561.93	$337.06
1200PN160	1600	586.37	351.72
1200PN180	1800	635.26	381.05
1200PN200	2000	684.14	410.38
1200PN210	2100	713.47	427.49
1200PN220	2200	742.80	445.48
1200PN230	2300	802.93	468.07
1200PN240	2400	863.06	491.53
1200PN250	2500	886.04	518.42

1965 AMP rms HOCKEY-PUK (FIG. J)

I_T = 1250 A avg. at 76° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

1000PK50	500	$189.48	$118.42
1000PK60	600	192.39	126.50
1000PK80	800	218.02	137.12
1000PK100	1000	249.54	149.60
1000PK120	1200	286.42	171.83
1000PK140	1400	321.35	192.80
1000PK150	1500	342.27	205.36
1000PK160	1600	365.55	219.32
1000PK180	1800	419.13	251.50

2500 AMP rms HOCKEY-PUK (FIG. J)

I_T = 1600 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

1600PN50	500	$428.96	$257.37
1600PN60	600	445.58	267.40
1600PN80	800	477.85	286.70
1600PN100	1000	515.00	308.95
1600PN120	1200	532.60	319.46
1600PN140	1400	603.97	362.48
1600PN150	1500	629.39	377.63
1600PN160	1600	654.81	392.79

INVERTER TYPE SCR'S

125 AMP rms STUD (FIG. C)

I_T = 80 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
81RLB50	500	$ 47.41	$28.45
81RLB60	600	56.73	40.02
81RLB80	800	74.90	44.92
81RLB100	1000	94.00	56.38
81RLB110	1100	103.03	61.85
81RLB120	1200	112.57	67.58

125 AMP rms STUD (FIG. C)

I_T = 80 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

81RL10	100	$ 44.09	$26.95
81RL20	200	47.22	28.32
81RL30	300	51.71	31.02
81RL40	400	58.80	35.28
81RL50	500	61.94	37.17
81RL60	600	69.00	41.40
81RL80	800	83.46	50.09
81RL100	1000	109.84	65.46
81RL110	1100	119.14	71.51
81RL120	1200	126.76	76.06

125 AMP rms STUD (FIG. C)

I_T = 80 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

81RM10	100	$ 44.99	$27.50
81RM20	200	48.18	28.90
81RM30	300	52.77	31.65
81RM40	400	60.00	36.00
81RM50	500	63.20	37.93
81RM60	600	70.41	42.24
81RM80	800	85.16	51.11
81RM100	1000	112.08	66.80

150 AMP rms STUD (FIG. C)

I_T = 95 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

91RL10	100	$44.19	$27.02
91RL20	200	51.34	30.77
91RL30	300	59.72	35.84
91RL40	400	67.97	40.76
91RL50	500	71.42	42.83
91RL60	600	80.73	47.85

150 AMP rms STUD (FIG. C)

I_T = 95 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
91RM10	100	$45.09	$27.57
91RM20	200	52.39	31.40
91RM30	300	60.94	36.57
91RM40	400	69.36	41.59
91RM50	500	72.88	43.70
91RM60	600	82.38	48.83

245 AMP rms STUD (FIG. F)

I_T = 155 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

151RL50	500	$ 99.64	$ 59.77
151RL60	600	116.26	69.75
151RL80	800	133.65	79.95
151RL100	1000	151.61	90.83
151RL110	1100	169.92	101.49
151RL120	1200	189.88	113.11

245 AMP rms STUD (FIG. F)

I_T = 155 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

151RM10	100	$ 65.85	$39.53
151RM20	200	70.76	42.45
151RM30	300	77.94	46.75
151RM40	400	87.35	52.44
151RM50	500	102.31	61.39
151RM60	600	119.42	71.64
151RM80	800	137.08	81.99
151RM100	1000	155.50	93.16

285 AMP rms STUD (FIG. F)

I_T = 180 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

161RL10	100	$ 69.30	$41.64
161RL20	200	74.47	44.66
161RL30	300	82.06	49.23
161RL40	400	91.96	55.22
161RL50	500	107.69	64.63
161RL60	600	125.73	75.41

285 AMP rms STUD (FIG. F)

I_T = 180 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

161RM10	100	$ 83.11	$49.83
161RM20	200	89.49	53.68
161RM30	300	98.51	59.13
161RM40	400	110.39	66.22
161RM50	500	129.25	77.55
161RM60	600	150.92	90.53

400 AMP rms HOCKEY-PUK (FIG. H)

I_T = 255 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

240PAL50	500	$ 81.18	$48.71
240PAL60	600	94.01	56.63
240PAL80	800	111.67	66.80
240PAL100	1000	130.68	78.12
240PAL110	1100	141.37	84.00
240PAL120	1200	152.06	89.94

400 AMP rms HOCKEY-PUK (FIG. H)

I_T = 255 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

240PAM10	100	$ 57.20	$34.10
240PAM20	200	61.49	37.40
240PAM30	300	66.50	39.60
240PAM40	400	75.96	45.54
240PAM50	500	90.20	54.12
240PAM60	600	104.45	62.81
240PAM80	800	127.27	76.96
240PAM100	1000	144.82	88.74

450 AMP rms STUD (FIG. I)

I_T = 285 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

250RL60	600	$189.09	$113.85
250RL80	800	241.56	145.52
250RL100	1000	294.03	177.21
250RL110	1100	321.75	191.07
250RL120	1200	341.55	204.93

450 AMP rms STUD (FIG. I)

I_T = 285 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

250RM60	600	$210.10	$126.50
250RM80	800	268.40	162.14
250RM100	1000	304.70	196.90
250RM110	1100	357.50	212.30
250RM120	1200	379.50	227.70

460 AMP rms HOCKEY-PUK (FIG. H)

I_T = 295 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-9	10-99
250PAL10	100	$ 60.35	$36.19
250PAL20	200	65.40	39.25
250PAL30	300	70.44	42.25
250PAL40	400	80.43	48.27
250PAL50	500	95.57	57.34
250PAL60	600	110.61	66.36

460 AMP rms HOCKEY-PUK (FIG. H)

I_T = 295 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

250PAM10	100	$ 67.06	$40.21
250PAM20	200	72.66	43.60
250PAM30	300	78.27	46.95
250PAM40	400	89.36	53.64
250PAM50	500	106.18	63.71
250PAM60	600	122.89	73.73

660 AMP rms HOCKEY-PUK (FIG. J)

I_T = 420 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

420PBL50	500	$146.72	$ 88.02
420PBL60	600	172.03	100.57
420PBL80	800	214.20	128.50
420PBL100	1000	260.77	156.48
420PBL110	1100	284.05	170.43
420PBL120	1200	302.70	181.64

660 AMP rms HOCKEY-PUK (FIG. J)

I_T = 420 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

420PBM50	500	$163.02	$ 97.79
420PBM60	600	186.29	111.76
420PBM80	800	237.49	142.51
420PBM100	1000	288.70	173.25
420PBM110	1100	314.55	188.60
420PBM120	1200	337.65	202.57

880 AMP rms HOCKEY-PUK (FIG. J)

I_T = 560 A avg. at 65° C. I_{GT} = 150 mA at 25° C. dv/dt = 500 V/µs minimum.

600PBQ120	1200	$298.00	$175.00
600PBQ130	1300	308.00	181.00
600PBQ140	1400	326.00	191.00
600PBQ150	1500	336.00	197.00
600PBQ160	1600	348.00	204.00
600PBQ170	1700	378.00	222.00
600PBQ180	1800	396.00	232.00

1000 AMP rms HOCKEY-PUK (FIG. J)

I_T = 635 A avg. at 56° C. I_{GT} = 150 mA at 25° C. dv/dt = 500 V/µs minimum.

650PBQ50	500	$207.13	$129.47
650PBQ60	600	225.94	141.24
650PBQ80	800	267.19	160.38
650PBQ100	1000	324.61	194.76
650PBQ110	1100	354.20	212.52
650PBQ120	1200	380.05	228.03

1100 AMP rms HOCKEY-PUK (FIG. J)

I_T = 700 A avg. at 70° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

700PKL150	1500	$546.23	$327.71
700PKL160	1600	571.10	342.66
700PKL170	1700	602.66	360.58
700PKL180	1800	638.81	383.31
700PKL190	1900	681.66	409.01
700PKL200	2000	790.02	474.01

1350 AMP rms HOCKEY-PUK (FIG. J)

I_T = 850 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

850PKL120	1200	$427.19	$256.13
850PKL130	1300	526.28	315.75
850PKL140	1400	544.93	326.96
850PKL150	1500	563.47	338.06
850PKL160	1600	577.34	353.48
850PKL170	1700	621.68	372.99
850PKL180	1800	658.98	395.41

1600 AMP rms HOCKEY-PUK (FIG. J)

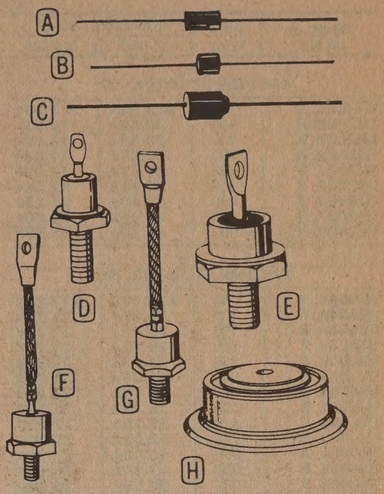
I_T = 1000 A avg. at 75° C. I_{GT} = 150 mA at 25° C. dv/dt = 200 V/µs minimum.

1000PKL50	500	$315.06	$189.62
1000PKL60	600	323.61	194.77
1000PKL80	800	333.23	199.96
1000PKL100	1000	405.02	243.09
1000PKL110	1100	441.65	264.99
1000PKL120	1200	474.32	284.59

INTERNATIONAL RECTIFIER
Silicon Rectifiers

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
0.75 AMP MOLDED (FIG. A)			
1N2069, A	200	$0.34	$0.26
1N2070, A	400	.37	.28
1N2071, A	600	.47	.35
1 AMP MOLDED (FIG. A)			
1N4001	50	$0.25	$0.19
1N4002	100	.26	.20
1N4003	200	.27	.22
1N4004	400	.30	.24
1N4005	600	.35	.31
1N4006	800	.44	.36
1N4007	1000	.55	.42
1.5 AMP MOLDED (FIG. B)			
10D05	50	$0.30*	$0.24†
10D1	100	.34*	.28†
10D2	200	.36*	.29†
10D4	400	.37*	.30†
10D6	600	.40*	.32†
10D8	800	.42*	.33†
10D10	1000	.45*	.36†
1.5 AMP MOLDED (FIG. B)			
1N4816	50	$0.32*	$0.25†
1N4817	100	.35*	.27†
1N4818	200	.38*	.30†
1N4819	300	.40*	.32†
1N4820	400	.43*	.34†
1N4821	500	.45*	.36†
1N4822	600	.50*	.40†
1N5052	700	.74*	.60†
1N5053	800	.92*	.73†
1N5054	1000	1.22*	.97†
2 AMP MOLDED (FIG. B)			
20D05	50	$0.34*	$0.28†
20D1	100	.42*	.34†
20D2	200	.45*	.36†
20D4	400	.52*	.42†
20D6	600	.60*	.48†
20D8	800	.82*	.66†
20D10	1000	.90*	.72†
3 AMP MOLDED (FIG. A)			
30S1	100	$0.32	$0.25
30S2	200	.35	.28
30S3	300	.39	.32
30S4	400	.43	.34
30S6	600	.55	.45
30S8	800	.88	.69
30S10	1000	1.09	.85
4 AMP MOLDED (FIG. A)			
40D1	100	$0.52*	$0.40†
40D2	200	.55*	.43†
40D4	400	.58*	.45†
40D6	600	.62*	.48†
40D8	800	.72*	.55†
6 AMP MOLDED (FIG. C)			
60S05	50	$0.67#	$0.51§
60S1	100	.71#	.55§
60S2	200	.78#	.61§
60S4	400	.86#	.67§
60S5	500	1.14#	.85§
60S6	600	1.41#	1.09§
60S8	800	1.65#	1.28§
60S10	1000	2.07#	1.60§
12 AMP STUD (FIG. D)			
12F5	50	$1.20*	$1.15†
12F10	100	1.31*	1.26†
12F20	200	1.77*	1.59†
12F40	400	1.86*	1.63†
12F60	600	3.30*	2.75†
12F80	800	5.30*	4.42†
12F100	1000	7.00*	5.83†
12 AMP STUD (FIG. D)			
1N1199A, RA	50	$1.10*	$0.95†
1N1200A, RA	100	1.25*	1.08†
1N1201A, RA	150	1.50*	1.30†
1N1202A, RA	200	1.77*	1.59†
1N1203A, RA	300	1.82*	1.59†
1N1204A, RA	400	1.86*	1.63†
1N1205A, RA	500	2.80*	2.34†
1N1206A, RA	600	3.30*	2.75†
1N3670A, RA	700	7.00*	6.50†
1N3671A, RA	800	7.50*	7.10†
1N3672A, RA	900	8.40*	7.90†
1N3673A, RA	1000	8.80*	8.00†

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
12 AMP STUD (FIG. D)			
12F5B	50	$1.30*	$1.20†
12F10B	100	1.35*	1.28†
12F20B	200	1.86*	1.62†
12F40B	400	1.95*	1.71†
12F60B	600	3.46*	2.89†
12F80B	800	5.80*	4.83†
12F100B	1000	7.60*	6.33†
15 AMP STUD (FIG. E)			
1N3208, R	50	$2.23	$1.68
1N3209, R	100	2.77	2.05
1N3210, R	200	3.85	2.89
1N3211, R	300	4.77	3.57
1N3212, R	400	6.05	4.54
1N3213, R	500	6.60	4.95
1N3214, R	600	7.15	5.36
16 AMP STUD (FIG. D)			
16F5	50	$1.80*	$1.50†
16F10	100	2.00*	1.60†
16F20	200	2.80*	2.25†
16F40	400	4.60*	3.85†
16F60	600	6.40*	5.35†
16F80	800	7.80*	6.78†
16F100	1000	8.80*	7.55†
35 AMP STUD (FIG. E)			
1N1183, R	50	$2.22	$1.66
1N1184, R	100	2.22	1.66
1N1185, R	150	2.66	1.99
1N1186, R	200	3.10	2.32
1N1187, R	300	3.50	2.62
1N1188, R	400	4.22	3.16
1N1189, R	500	4.93	3.70
1N1190, R	600	5.57	4.17
1N3765, R	700	6.40	4.80
1N3766, R	800	7.23	5.42
1N3767, R	900	8.13	6.23
1N3768, R	1000	9.40	7.05
40 AMP STUD (FIG. E)			
40HF5	50	$2.22	$1.66
40HF10	100	2.22	1.66
40HF20	200	3.10	2.32
40HF30	300	3.50	2.62
40HF40	400	4.22	3.16
40HF50	500	4.93	3.70
40HF60	600	5.57	4.17
40HF80	800	7.23	5.42
40HF100	1000	9.40	7.05
40HF120	1200	12.22	9.16
40 AMP STUD (FIG. E)			
1N1183A, RA	50	$3.09	$2.31
1N1184A, RA	100	3.18	2.39
1N1185A, RA	150	3.43	2.57
1N1186A, RA	200	3.51	2.63
1N1187A, RA	300	4.29	3.21
1N1188A, RA	400	5.23	3.92
1N1189A, RA	500	5.87	4.40
1N1190A, RA	600	6.44	4.83
60 AMP STUD (FIG. E)			
1N2128, R	50	$2.46	$1.85
1N2129, R	100	2.46	1.85
1N2130, R	150	2.83	2.12
1N2131, R	200	3.45	2.59
1N2133, R	300	3.88	2.91
1N2135, R	400	4.68	3.51
1N2137, R	500	5.48	4.11
1N2138, R	600	6.18	4.64
60 AMP STUD (FIG. E)			
60HF10	100	$ 2.46	$1.85
60HF20	200	3.45	2.58
60HF30	300	3.88	2.91
60HF40	400	4.68	3.51
60HF50	500	5.48	4.11
60HF60	600	6.18	4.64
60HF80	800	7.95	5.96
60HF100	1000	10.33	7.75
60 AMP STUD (FIG. E)			
1N2128A, RA	50	$ 5.59	$3.97
1N2129A, RA	100	5.71	4.04
1N2130A, RA	150	5.98	4.23
1N2131A, RA	200	6.12	4.32
1N2133A, RA	300	7.42	5.24
1N2135A, RA	400	8.74	6.17
1N2137A, RA	500	9.87	6.97
1N2138A, RA	600	11.00	7.76
85 AMP STUD (FIG. E)			
70H5A	50	$ 5.59	$ 3.97
70H10A	100	5.71	4.04
70H20A	200	6.12	4.32
70H30A	300	7.42	5.24
70H40A	400	8.74	6.17
70H50A	500	9.87	6.97
70H60A	600	11.00	7.76
70H80A	800	14.16	10.00
70H100A	1000	17.50	12.35
70H120A	1200	21.93	15.47



JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
100 AMP STUD (FIG. F)			
1N3288, R	100	$16.40▲	$ 9.80■
1N3289, R	200	16.60▲	9.90■
1N3290, R	300	18.65▲	11.11■
1N3291, R	400	20.69▲	12.31■
1N3292, R	500	22.07▲	13.18■
1N3293, R	600	23.44▲	14.04■
1N3294, R	800	26.60▲	16.01■
1N3295, R	1000	30.78▲	18.47■
1N3296, R	1200	38.32▲	22.90■
100 AMP STUD (FIG. F)			
1N3288A, RA	100	$16.40▲	$ 9.80■
1N3289A, RA	200	16.60▲	9.90■
1N3290A, RA	300	18.65▲	11.11■
1N3291A, RA	400	20.69▲	12.31■
1N3292B, RB	500	22.07▲	13.18■
1N3293A, RA	600	23.44▲	14.04■
1N3294A, RA	800	26.60▲	16.01■
1N3295A, RA	1000	30.78▲	18.47■
1N3296A, RA	1200	38.32▲	22.90■
150 AMP STUD (FIG. G)			
1N3111, R	50	$17.96▲	$13.48■
1N3085, R	100	18.34▲	13.75■
1N3086, R	200	19.99▲	14.98■
1N3087, R	300	20.16▲	15.13■
1N3088, R	400	20.71▲	15.53■
1N3089, R	500	22.00▲	16.50■
1N3090, R	600	23.84▲	17.88■
1N3091, R	800	25.85▲	19.38■
1N3092, R	1000	27.96▲	20.97■
1N5162, R	1200	30.44▲	22.83■
150 AMP STUD (FIG. F)			
150K5A	50	$17.92▲	$10.72■
150K10A	100	18.30▲	10.94■
150K20A	200	18.68▲	11.17■
150K30A	300	21.29▲	12.74■
150K40A	400	23.90▲	14.31■
150K60A	600	27.62▲	16.62■
150K80A	800	31.70▲	18.93■
150K100A	1000	35.21▲	21.20■
150K120A	1200	38.30▲	23.40■
150 AMP STUD (FIG. G)			
150L5A	50	$18.22▲	$11.02■
150L10A	100	18.98▲	11.24■
150L20A	200	21.59▲	11.47■
150L30A	300	24.20▲	13.04■
150L40A	400	28.21▲	14.61■
150L60A	600	30.10▲	16.92■
150L80A	800	32.00▲	19.23■
150L100A	1000	35.51▲	21.50■
150L120A	1200	38.60▲	23.70■
250 AMP STUD (FIG. G)			
1N3735, R	100	$30.58▲	$18.37■
1N3736, R	200	32.27▲	19.43■
1N3737, R	300	32.80▲	19.72■
1N3738, R	400	33.32▲	20.00■
1N3739, R	500	35.90▲	21.74■
1N3740, R	600	38.84▲	23.48■
1N3741, R	800	44.63▲	26.63■
1N3742, R	1000	50.42▲	30.11■
1N3743, R	1200	56.21▲	33.58■

*Lots of 1-49. †Lots of 50-99. # Lots of 1-24. §Lots of 25-99. ▲ Lots of 1-9. ■ Lots of 10-99

Listing continued on following page

INTERNATIONAL RECTIFIER
Silicon Rectifiers

SILICON RECTIFIERS (Cont'd)

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
250 AMP STUD (FIG. G)			
1N2054, R	50	$29.81▲	$17.93■
1N2055, R	100	30.58▲	17.93■
1N2057, R	200	30.58▲	18.37■
1N2059, R	300	31.57▲	19.03■
1N2061, R	400	31.57▲	19.03■
1N2064, R	600	36.74▲	22.28■
1N2066, R	800	42.30▲	25.25■
1N2067, R	900	45.05▲	26.90■
1N2068, R	1000	47.85▲	28.55■
275 AMP STUD (FIG. G)			
1N4044, R	50	$29.43▲	$17.68■
1N4045, R	100	29.45▲	17.70■
1N4046, R	150	29.47▲	17.72■
1N4047, R	200	29.48▲	17.73■
1N4048, R	250	33.83▲	20.39■
1N4049, R	300	34.65▲	21.05■
1N4050, R	400	35.70▲	21.40■
1N4051, R	500	36.19▲	21.67■
1N4052, R	600	39.19▲	23.90■
1N4053, R	700	42.00▲	25.25■
1N4054, R	800	45.00▲	27.00■
1N4055, R	900	47.80▲	28.60■
1N4056, R	1000	50.55▲	30.25■
300 AMP STUD (FIG. G)			
300U5A	50	$22.83▲	$17.13■
300U10A	100	22.90▲	17.17■
300U20A	200	23.60▲	17.68■
300U30A	300	24.58▲	18.43■
300U40A	400	26.43▲	19.80■
300U60A	600	32.99▲	24.76■
300U80A	800	38.14▲	28.57■
300U100A	1000	41.83▲	31.40■
300U120A	1200	49.99▲	37.52■
300 AMP STUD (FIG. G)			
301U80	800	$ 77.73▲	$ 51.03■
301U100	1000	80.41▲	52.15■
301U120	1200	81.34▲	53.60■
301U140	1400	98.52▲	63.91■
301U160	1600	125.14▲	79.88■
301U180	1800	150.60▲	95.19■
301U200	2000	182.85▲	108.50■
301U210	2100	185.80▲	115.10■
301U220	2200	200.61▲	125.14■
301U230	2300	212.71▲	133.94■
301U240	2400	229.43▲	142.44■
301U250	2500	251.17▲	155.48■

⋆ Price available on request.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
470 AMP HOCKEY-PUK (FIG. H)			
471PDA80	800	$ 49.06▲	$ 29.55■
47PDA100	1000	51.37▲	30.95■
471PDA120	1200	53.35▲	31.90■
471PDA140	1400	62.48▲	39.05■
471PDA160	1600	84.15▲	51.15■
471PDA180	1800	103.29▲	62.15■
471PDA200	2000	118.91▲	70.95■
471PDA210	2100	124.08▲	77.55■
471PDA220	2200	141.90▲	84.15■
471PDA230	2300	146.96▲	91.85■
471PDA240	2400	166.21▲	99.55■
471PDA250	2500	182.60▲	110.55■
500 AMP STUD (FIG. G)			
501V60	600	$ 90.75▲	$ 54.18■
501V80	800	95.98▲	56.93■
501V100	1000	103.40▲	64.63■
501V120	1200	116.60▲	72.88■
501V140	1400	132.44▲	82.78■
501V160	1600	147.40▲	92.13■
501V180	1800	169.40▲	105.88■
501V200	2000	158.37▲	118.78■
501V210	2100	⋆	⋆
501V220	2200	⋆	⋆
501V230	2300	⋆	⋆
501V240	2400	⋆	⋆
501V250	2500	⋆	⋆
500 AMP STUD (FIG. G)			
501V60B	600	$108.90▲	$65.01■
501V80B	800	115.17▲	68.31■
501V100B	1000	124.08▲	77.55■
501V120B	1200	139.92▲	87.45■
501V140B	1400	158.93▲	99.88■
800 AMP HOCKEY-PUK (FIG. H)			
801PDB120	1200	$ 99.00▲	$ 74.25■
801PDB140	1400	110.55▲	82.94■
801PDB160	1600	121.66▲	91.25■
801PDB180	1800	132.66▲	99.50■
801PDB200	2000	143.77▲	107.80■
801PDB210	2100	151.09▲	113.30■
801PDB220	2200	158.51▲	118.86■
801PDB230	2300	166.21▲	124.63■
801PDB240	2400	174.35▲	130.79■
801PDB250	2500	192.50▲	144.38■
800 AMP HOCKEY-PUK (FIG. H)			
801PDB60B	600	$ 84.34▲	$63.25■
801PDB80B	800	90.31▲	67.71■
801PDB100B	1000	102.14▲	76.62■
801PDB120B	1200	114.07▲	85.53■
801PDB140B	1400	122.87▲	92.13■

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
1100 AMP HOCKEY-PUK (FIG. H)			
1101PDK200	2000	$320.49▲	$192.50■
1101PDK220	2200	353.03▲	203.75■
1101PDK240	2400	365.29▲	217.50■
1101PDK260	2600	389.58▲	233.75■
1101PDK280	2800	423.82▲	255.00■
1101PDK300	3000	469.65▲	281.25■
1600 AMP HOCKEY-PUK (FIG. H)			
1601PDK120	1200	$264.49▲	$160.00■
1601PDK140	1400	282.65▲	170.00■
1601PDK160	1600	300.35▲	181.02■
1601PDK180	1800	322.58▲	193.75■
1601PDK200	2000	345.83▲	207.50■
1601PDK240	2400	382.00▲	238.75■
1601PDK250	2500	⋆	⋆
2000 AMP HOCKEY-PUK (FIG. H)			
2001PDK60	600	$225.73▲	$136.25■
2001PDK80	800	241.67▲	145.00■
2001PDK100	1000	266.51▲	160.62■
2001PDK120	1200	270.55▲	162.50■
2001PDK140	1400	332.41▲	200.00■
2001PDK160	1600	373.46▲	225.00■
2500 AMP HOCKEY-PUK (FIG. H)			
2501PDK20	200	$214.60▲	$134.13■
2501PDK30	300	218.90▲	136.81■
2501PDK40	400	223.40▲	139.62■
2501PDK60	600	228.00▲	142.50■
2600 AMP HOCKEY-PUK (FIG. H)			
2601PDN120	1200	$493.35▲	$308.34■
2601PDN140	1400	533.83▲	333.64■
2601PDN160	1600	586.96▲	366.85■
2601PDN180	1800	645.15▲	403.22■
2601PDN200	2000	708.40▲	442.75■
2601PDN240	2400	857.67▲	536.04■
2601PDN250	2500	925.98▲	578.74■
3000 AMP HOCKEY-PUK (FIG. H)			
3001PDN60	600	$442.75▲	$278.72■
3001PDN80	800	498.41▲	311.51■
3001PDN100	1000	554.07▲	346.29■
3001PDN120	1200	609.48▲	381.08■
3001PDN140	1400	665.39▲	415.87■

▲ Lots of 1-9. ■ Lots of 10-99

POWER SCHOTTKY RECTIFIERS

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
1.1 AMP OUTPUT (FIG. A)			
11DQ03	30	$1.17	$0.82
11DQ04	40	1.90	1.33
11DQ05	50	2.54	1.78
11DQ06	60	3.09	2.16
8 AMP OUTPUT (FIG. C)			
80SQ030	30	$3.55	$2.48
80SQ035	35	3.91	2.73
80SQ040	40	4.28	2.98
80SQ045	45	4.64	3.24
10 AMP OUTPUT (FIG. I)			
10TQ030	30	$3.44	$2.43
10TQ035	35	4.29	3.03
10TQ040	40	5.10	3.61
10TQ045	45	6.00	4.24
12 AMP OUTPUT (FIG. J)			
12CTQ030*	30	$4.08	$2.84
12CTQ035*	35	5.08	3.54
12CTQ040*	40	6.04	4.22
12CTQ045*	45	7.10	4.95
20 AMP OUTPUT (FIG. J)			
20CTQ030*	30	$5.37	$3.75
20CTQ035*	35	6.37	4.45
20CTQ040*	40	7.64	5.33
20CTQ045*	45	8.74	6.10
27.5 AMP OUTPUT (FIG. D)			
1N6095	30	$5.10	$3.56
1N6096	40	5.73	4.00

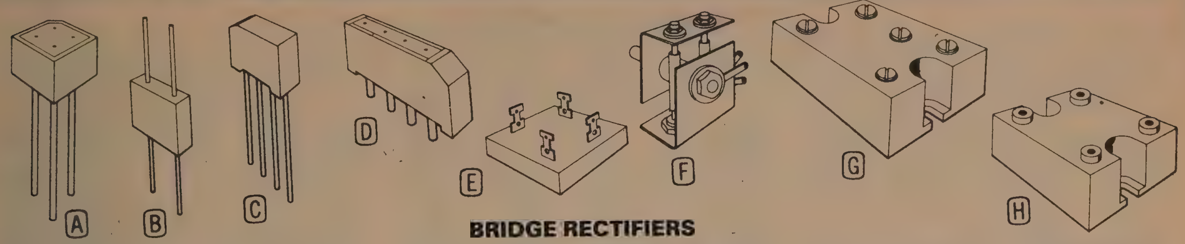
*Dual center tap with common cathode.

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
30 AMP OUTPUT (FIG. I)			
30CTQ030*	30	$ 6.92	$4.83
30CTQ035*	35	8.01	5.59
30CTQ040*	40	9.46	6.60
30CTQ045*	45	10.92	7.62
30 AMP OUTPUT (FIG. D)			
21FQ030	30	$6.46	$4.50
21FQ035	35	6.83	4.76
SD41	35	7.55	5.27
21FQ040	40	7.19	5.02
21FQ045	45	7.55	5.27
30 AMP OUTPUT (FIG. D)			
20FQ020	20	$6.37	$4.45
20FQ030	30	6.73	4.70
20FQ035	35	7.10	4.95
20FQ040	40	7.46	5.21
20FQ045	45	7.83	5.46
30 AMP OUTPUT (FIG. D)			
30FQ030	30	$7.55	$5.27
30FQ035	35	7.74	5.40
30FQ040	40	8.28	5.78
30FQ045	45	8.65	6.03
30 AMP OUTPUT (FIG. D)			
30FQ030A	30	$8.10	$5.65
30FQ035A	35	8.46	5.90
30FQ040A	40	8.83	6.16
30FQ045A	45	9.19	6.41
55.5 AMP OUTPUT (FIG. E)			
1N6097	30	$6.73	$4.70
1N6098	40	8.19	5.72

JEDEC or I-R No.	PRV Volts	Net Each, Lots of	
		1-99	100-999
60 AMP OUTPUT (FIG. E)			
52HQ030	30	$6.37	$4.45
52HQ035	35	6.92	4.83
SD51	35	7.64	5.33
52HQ040	40	7.64	5.33
52HQ045	45	8.19	5.72
51HQ045	45	7.64	5.33
60 AMP OUTPUT (FIG. E)			
50HQ020	20	$6.10	$4.25
50HQ030	30	6.83	4.76
50HQ035	35	7.28	5.08
50HQ040	40	8.19	5.72
50HQ045	45	8.74	6.10
60 AMP OUTPUT (FIG. E)			
60HQ060	60	$ 8.92	$6.22
60HQ080	80	9.83	6.86
60HQ100	100	11.83	8.26
75 AMP OUTPUT (FIG. E)			
75HQ030	30	$7.19	$5.02
75HQ035	35	7.64	5.33
75HQ040	40	8.46	5.91
75HQ045	45	9.28	6.48
85 AMP OUTPUT (FIG. E)			
85HQ030	30	$7.75	$5.41
85HQ035	35	8.01	5.59
85HQ040	40	8.92	6.22
85HQ045	45	9.83	6.86

IOR

INTERNATIONAL RECTIFIER
Silicon Rectifiers



BRIDGE RECTIFIERS

1.2 AMP OUTPUT (FIG. A)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
1KAB10	100	$0.58	$0.51
1KAB20	200	.62	.54
1KAB40	400	.65	.57
1KAB60	600	.67	.59
1KAB80	800	.88	.77
1KAB100	1000	1.02	.89

1.8 AMP OUTPUT (FIG. B)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
18DB05A	50	$1.20	$1.04
18DB1A	100	1.20	1.04
18DB2A	200	1.20	1.04
18DB3A	300	1.22	1.06
18DB4A	400	1.25	1.09
18DB5A	500	1.29	1.12
18DB6A	600	1.33	1.16
18DB7A	700	1.36	1.18
18DB8A	800	1.40	1.22
18DB10A	1000	1.43	1.24

1.9 AMP OUTPUT (FIG. C)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
2KBB10	100	$0.65	$0.54
2KBB20	200	.66	.55
2KBB40	400	.67	.56
2KBB60	600	.71	.59
2KBB80	800	.89	.74
2KBB100	1000	1.01	.84

10 AMP OUTPUT (FIG. E)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
100JB05L	50	$2.90	$2.48
100JB1L	100	3.00	2.51
100JB2L	200	3.05	2.60
100JB4L	400	3.20	2.70
100JB6L	600	4.20	3.50
100JB8L	800	4.85	4.11
100JB10L	1000	6.06	5.14
100JB12L	1200	7.75	6.56

24 AMP OUTPUT (FIG. F)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
B12F40	400	$39.16	$34.27
B12F60	600	45.36	39.68
B12F100	1000	67.04	58.66

25 AMP OUTPUT (FIG. E)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
250JB05L	50	$2.90	$2.48
250JB1L	100	3.05	2.55
250JB2L	200	3.10	2.65
250JB4L	400	3.30	2.75
250JB6L	600	4.35	3.65
250JB8L	800	5.01	4.25
250JB10L	1000	6.27	5.31
250JB12L	1200	7.84	6.64

32 AMP OUTPUT (FIG. F)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
B70H40	400	$54.87	$48.01
B70H60	600	65.46	57.27
B70H80	800	73.38	66.45
B70H100	1000	94.90	83.04

35 AMP OUTPUT (FIG. E)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
35MB05A	50	$3.15	$2.70
35MB10A	100	3.30	2.80
35MB20A	200	3.35	2.85
35MB40A	400	3.45	2.95
35MB60A	600	4.70	4.00
35MB80A	800	5.68	4.80
35MB100A	1000	7.20	6.07
35MB120A	1200	8.80	7.44

60 AMP OUTPUT (FIG. G)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
600HT1U	100	$49.80	$42.33
600HT2U	200	54.40	46.35
600HT3U	300	58.85	50.23
600HT4U	400	63.45	54.25
600HT6U	600	67.91	58.14
600HT8U	800	75.68	64.92
600HT10U	1000	84.24	72.40

80 AMP OUTPUT (FIG. G)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
800HB1U	100	$47.84	$41.88
800HB2U	200	51.52	45.08
800HB3U	300	55.09	48.19
800HB4U	400	58.77	51.41
800HB6U	600	62.33	54.51

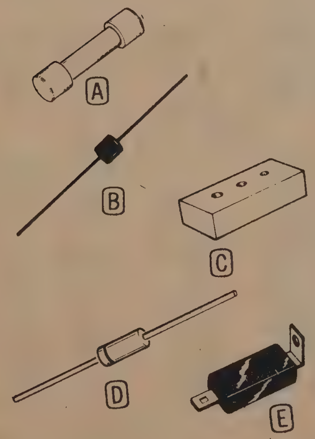
100 AMP OUTPUT (FIG. G)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
1000HB1U	100	$45.02	$38.14
1000HB2U	200	49.25	41.84
1000HB3U	300	53.32	45.42
1000HB4U	400	57.59	49.12
1000HB6U	600	61.68	52.69

100 AMP OUTPUT (FIG. G)

I-R No.	PRV Volts	Net Each, Lots 1-49	Net Each, Lots 50-99
1000HT1U	100	$61.76	$52.79
1000HT2U	200	67.28	57.62
1000HT3U	300	72.63	62.28
1000HT4U	400	78.15	67.11
1000HT6U	600	83.50	71.77

HIGH VOLTAGE RECTIFIERS



45 mAMP OUTPUT (FIG. A)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
1N1147	12K	$22.40	$21.96
1N1149	16K	29.58	25.58

80 mAMP OUTPUT (FIG. B)

JEDEC or I-R No.	PRV Volts	1-49	50-99
8JV30	3K	$1.02	$0.77
8JV60	6K	1.18	.88
8JV100	10K	1.61	1.21
8JV120	12K	1.90	1.60
8JV150	15K	2.10	1.70

250 mAMP OUTPUT (FIG. A)

JEDEC or I-R No.	PRV Volts	1-9	10-24
67D015H55FNN	1500	$ 6.33	$ 5.49
67D018H55FNN	1800	6.61	5.77
67D024H55FNN	2400	6.83	5.94
67D036H55FNN	3600	8.04	6.99
67D048H55FNN	4800	8.65	7.52
67D050H55FNN	5000	8.81	7.64
67D075H55FNN	7500	12.97	11.24
67D100H55FNN	10K	14.50	12.50
67D120H55FNN	12K	15.49	13.46
67D150H55FNN	15K	15.22	13.20
67D200H55FNN	20K	21.30	18.49
67D250H55FNN	25K	24.56	21.31
67D300H55FNN	30K	31.08	26.98
67D400H55FNN	40K	38.06	32.64
67D500H55FNN	50K	44.14	36.08

250 mAMP OUTPUT (FIG. C)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
67D025D04TNN*	2500	$ 7.06	$ 6.14
67D050D04TNN*	5000	12.17	10.57
67D050H04TNN	5000	7.06	6.14
67D075D04TNN*	7500	17.39	15.10
67D075H04TNN	7500	9.68	8.40
67D100D04TNN*	10K	25.87	22.47

*Doubler; all others half-wave.

250 mAMP OUTPUT (Cont'd) (FIG. C)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
67D100H04TNN	10K	$14.00	$12.16
67D120D04TNN*	12K	31.00	26.90
67D120H04TNN	12K	16.39	14.22
67D150D04TNN*	15K	33.26	28.86
67D150H04TNN	15K	17.39	15.10
67D200D04TNN*	20K	43.48	37.72
67D200H04TNN	20K	22.50	19.53
67D300H04TNN	30K	33.26	28.86
67D400H04TNN	40K	43.48	37.72

250 mAMP OUTPUT (FIG. D)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
67D006H53PNN	600	$ 2.63	$ 2.30
67D010H53PNN	1000	2.74	2.41
67D015H53PNN	1500	3.42	2.97
67D020H53PNN	2000	3.58	3.14
67D030H53PNN	3000	4.70	4.09
67D050H53PNN	5000	5.88	5.10
67D080H53PNN	8000	10.24	8.90
67D100H53PNN	10K	11.87	10.32
67D120H53PNN	12K	13.89	12.04
67D150H53PNN	15K	14.90	12.92
67D200H53PNN	20K	19.23	16.70
67D250H53PNN	25K	23.60	20.46
67D300H53PNN	30K	27.94	24.25

300 mAMP OUTPUT (FIG. D)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
30AV60	6000	$1.79	$1.34
30AV80	8000	2.06	1.54
30AV100	10K	2.82	2.11

350 mAMP OUTPUT (FIG. C)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
67D025D20TTS*	2500	$ 9.78	$ 8.50
67D050D20TTS*	5000	19.99	17.35
67D050H20TTS	5000	9.82	8.58
67D075D20TTS*	7500	29.90	25.95
67D075H20TTS	7500	16.96	14.83
67D100D20TTS*	10K	45.76	39.69
67D100H20TTS	10K	22.58	19.75
67D120D20TTS*	12K	55.00	47.72
67D120H20TTS	12K	27.08	23.70
67D150D20TTS*	15K	59.79	57.87
67D150H20TTS	15K	29.40	25.70
67D200D20TTS*	20K	80.44	67.80
67D200H20TTS	20K	39.41	34.37
67D250D20TTS*	25K	100.02	86.77
67D250H20TTS	25K	48.54	42.65
67D300D20TTS*	30K	119.58	103.75
67D300H20TTS	30K	58.89	51.45
67D400D20TTS*	40K	160.89	139.59

Listing continued on following page

INTERNATIONAL RECTIFIER
Silicon Rectifiers

HIGH VOLTAGE RECTIFIERS (Cont'd)

JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
350 mAMP OUTPUT (Cont'd) (FIG. C)			
67D400H20TTS	40K	$79.46	$69.35
67D500H20TTS	50K	98.44	85.98
67D600H20TTS	60K	118.89	103.45
67D750H20TTS	75K	149.69	129.98

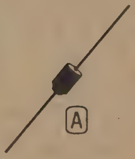
400 mAMP OUTPUT (FIG. E)

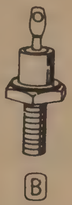
		1-49	50-99
50MV80	8000	$4.75	$3.57
50MV100	10K	4.92	3.70
50MV120	12K	5.03	3.78

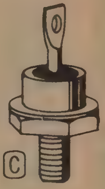
JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
1250 mAMP OUTPUT (FIG. C)			
1N4865	1500	$ 8.45	$ 7.34
1N4866	2400	10.67	9.27
1N4867	3000	10.84	10.51
1N4868	5000	14.75	12.80
1N4869	7500	20.58	17.86
1N4870	10K	26.60	23.08
1N4871	12K	30.67	26.61
1N4872	15K	37.47	32.51
1N4873	20K	48.72	42.27
1N4874	25K	59.79	51.87
1N4875	30K	71.63	62.14
1N4876	40K	93.57	81.18
1N4877	50K	116.47	101.05
1N4887	75K	172.77	149.89

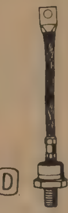
JEDEC or I-R No.	PRV Volts	Net Each, Lots 1-9	Net Each, Lots 10-24
1250 mAMP OUTPUT (FIG. C)			
67C015H20LSS	1500	$ 9.00	$ 7.82
67C024H20LSS	2400	11.36	9.87
67C030H20LSS	3000	11.54	10.02
67C050H20LSS	5000	15.71	13.63
67C075H20LSS	7500	21.92	19.02
67C100H20LSS	10K	28.33	24.58
67C120H20LSS	12K	32.66	28.34
67C150H20LSS	15K	39.91	34.62
67C200H20LSS	20K	51.89	45.02
67C250H20LSS	25K	63.68	55.24
67C300H20LSS	30K	76.29	66.19
67C400H20LSS	40K	99.65	86.46
67C500H20LSS	50K	124.04	107.62
67C750H20LSS	75K	184.00	159.63

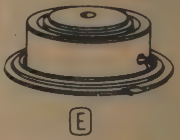
FAST RECOVERY RECTIFIERS











JEDEC or I-R No.	PRV Volts	trr µsec	Net Each, Lots 1-49	Net Each, Lots 50-99
4 AMP MOLDED (FIG. A)				
40SL05	50	0.2	$0.85	$0.68
40SL1	100	0.2	.89	.72
40SL2	200	0.2	1.00	.80
40SL4	400	0.2	1.40	1.20
40SL6	600	0.2	1.65	1.32
6 AMP STUD (FIG. B)				
1N3879, R	50	0.3	$2.10#	$1.65‡
1N3880, R	100	0.3	2.50#	1.95‡
1N3881, R	200	0.3	3.00#	2.30‡
1N3882, R	300	0.3	3.50#	2.70‡
1N3883, R	400	0.3	4.00#	3.10‡
12 AMP STUD (FIG. B)				
1N3889, R	50	0.3	$2.60#	$2.00‡
1N3890, R	100	0.3	3.00#	2.30‡
1N3891, R	200	0.3	3.50#	2.70‡
1N3892, R	300	0.3	4.00#	3.10‡
1N3893, R	400	0.3	5.50#	4.25‡
12 AMP STUD (FIG. B)				
12FL5S02	50	0.2	$2.80*	$1.99†
12FL10S02	100	0.2	3.20*	2.03†
12FL20S02	200	0.2	3.94*	2.48†
12FL40S02	400	0.2	5.70*	3.58†
12FL60S02	600	0.2	6.91*	4.32†
12FL80S02	80	0.2	8.10*	5.10†
12FL100S02	100	0.2	9.52*	6.00†
16 AMP STUD (FIG. B)				
16FL5S02	50	0.2	$3.10*	$1.94†
16FL10S02	100	0.2	3.90*	2.44†
16FL20S02	200	0.2	4.60*	2.88†
16FL40S02	400	0.2	6.70*	4.18†
16FL60S02	600	0.2	7.50*	4.69†
16FL80S02	80	0.2	9.72*	6.12†
16FL100S02	100	0.2	11.42*	7.20†
20 AMP MOLDED (FIG. A)				
1JK30	3K	0.06	$0.82	0.61
1JK60	6K	0.06	.95	.71
1JK100	10K	0.06	1.30	.98
1JK120	12K	0.06	1.53	1.15
1JK150	15K	0.06	1.76	1.32
1JK160	16K	0.06	1.92	1.44
1JK180	18K	0.06	2.12	1.59

20 AMP STUD (FIG. C)

			1-49	50-99
IRD3899, R	50	0.35	$3.00	$2.53
IRD3900, R	100	0.35	3.27	2.76
IRD3901, R	200	0.35	3.80	3.22
IRD3902, R	300	0 35	4.33	3.66
IRD3903, R	400	0.35	4.80	4.05
30 AMP STUD (FIG. C)				
IRD3909, R	50	0.35	$3.55	$3.00
IRD3910, R	100	0.35	4.18	3.53
IRD3911, R	200	0.35	4.55	3.84
IRD3912, R	300	0.35	5.55	4.69
IRD3913, R	400	0.35	6.36	5.37
40 AMP STUD (FIG. C)				
40HFL5S02	50	0.2	★	★
40HFL10S02	100	0.2	$4.55*	$3.13†

JEDEC or I-R No.	PRV Volts	trr µsec	Net Each, Lots 1-49	Net Each, Lots 50-99
40 AMP STUD (FIG. C) (Cont'd)				
40HFL10S05	100	0.5	$4.37*	$3.02†
40HFL10S10	100	1.0	★	★
40HFL20S02	200	0.2	5.09*	3.50†
40HFL20S05	200	0.5	4.91*	3.39†
40HFL20S10	200	1.0	★	★
40HFL40S02	400	0.2	8.00*	5.50†
40HFL40S05	400	0.5	7.08*	4.87†
40HFL40S10	400	1.0	★	★
40HFL60S02	600	0.2	10.18*	7.00†
40HFL60S05	600	0.5	9.45*	6.50†
40HFL60S10	600	1.0	★	★
40HFL80S05	800	0.5	13.40*	8.37†
40HFL80S10	800	1.0	★	★
40HFL100S05	1000	0.5	16.80*	10.50†
40HFL100S10	1000	1.0	★	★
70 AMP STUD (FIG. C)				
70HFL10S02	100	0.2	$7.81	$6.51
70HFL10S05	100	0.5	7.56	6.26
70HFL10S10	100	1.0	★	★
70HFL20S02	200	0.2	12.56	10.60
70HFL20S05	200	0.5	12.06	10.10
70HFL20S10	200	1.0	★	★
70HFL40S02	400	0.2	15.00	12.65
70HFL40S05	400	0.5	14.50	12.15
70HFL40S10	400	1.0	★	★
70HFL60S02	600	0.2	17.87	15.07
70HFL60S05	600	0.5	17.37	14.57
70HFL60S10	600	1.0	★	★
70HFL80S05	800	0.5	22.81	17.39
70HFL80S10	800	1.0	★	★
70HFL100S05	1000	0.5	28.18	23.06
70HFL100S10	1000	1.0	★	★
250 AMP STUD (FIG. D)				
251UL20S10	200	1.0	$60.50§	$35.58°
251UL20S15	200	1.5	52.50§	32.80°
251UL40S10	400	1.0	66.50§	39.11°
251UL40S15	400	1.5	52.50§	32.80°
251UL60S10	600	1.0	73.00§	42.95°
251UL60S15	600	1.5	58.60§	36.62°
251UL60S20	600	2.0	52.50§	32.80°
251UL80S10	800	1.0	78.76§	46.32°
251UL80S15	800	1.5	65.62§	41.01°
251UL80S20	800	2.0	53.80§	32.95°
251UL100S10	1000	1.0	84.30§	49.58°
251UL100S15	1000	1.5	70.24§	43.90°
251UL100S20	1000	2.0	55.10§	33.10°
251UL120S20	1200	2.0	58.45§	35.50°
251UL140S20	1400	2.0	62.30§	37.55°

JEDEC or I-R No.	PRV Volts	trr µsec	Net Each, Lots 1-49	Net Each, Lots 50-99
250 AMP STUD (FIG. D) (Cont'd)				
251UL140S25	1400	2.5	$60.60§	$35.65°
251UL140S30	1400	3.0	57.50§	33.85°
251UL160S25	1600	2.5	68.60§	40.35°
251UL160S30	1600	3.0	65.00§	38.40°
251UL180S25	1800	2.5	79.60§	46.85°
251UL180S30	1800	3.0	75.00§	44.50°
400 AMP HOCKEY-PUK (FIG. E)				
401PDA20L15	200	1.5	$64.00§	$40.00°
401PDA40L15	400	1.5	70.08§	43.80°
401PDA60L15	600	1.5	76.48§	47.80°
401PDA60L20	600	2.0	57.36§	36.85°
401PDA80L15	800	1.5	84.80§	53.00°
401PDA80L20	800	2.0	63.60§	39.75°
401PDA100L15	1000	1.5	97.60§	61.00°
401PDA100L20	1000	2.0	73.20§	45.75°
401PDA100L25	1000	2.5	61.00§	38.13°
401PDA100L30	1000	3.0	48.80§	30.50°
401PDA120L20	1200	2.0	84.00§	52.50°
401PDA120L25	1200	2.5	70.00§	43.75°
401PDA120L30	1200	3.0	56.00§	35.00°
401PDA140L20	1400	2.0	96.00§	60.00°
401PDA140L25	1400	2.5	80.00§	50.00°
401PDA140L30	1400	3.0	64.00§	40.00°
401PDA160L25	1600	2.5	92.00§	57.50°
401PDA160L30	1600	3.0	73.60§	46.00°
401PDA180L25	1800	2.5	106.00§	66.25°
401PDA180L30	1800	3.0	84.80§	53.00°
650 AMP HOCKEY-PUK (FIG. E)				
651PDB40L20	400	2.0	129.97§	$77.74°
651PDB40L25	400	2.5	123.47§	73.85°
651PDB50L20	500	2.0	144.41§	86.38°
651PDB50L25	500	2.5	137.20§	82.06°
651PDB60L20	600	2.0	158.83§	95.00°
651PDB60L25	600	2.5	161.34§	96.50°
651PDB80L20	800	2.0	185.16§	110.75°
651PDB80L25	800	2.5	176.49§	105.56°
651PDB80L30	800	3.0	160.50§	96.00°
651PDB100L25	1000	2.5	187.25§	112.00°
651PDB100L30	1000	3.0	177.86§	106.69°
651PDB120L25	1200	2.5	207.58§	124.16°
651PDB120L30	1200	3.0	197.10§	118.25°
651PDB130L30	1300	3.0	211.51§	126.92°
651PDB140L30	1400	3.0	228.33§	137.00°
651PDB160L30	1600	3.0	246.36§	148.00°

★Prices available on request. *Lots of 1-99. †Lots of 100-999. §Lots of 1-9. °Lots of 10-99. #Lots of 1-4. ‡Lots of 5-9.

INTERNATIONAL RECTIFIER
Rectifier Assemblies

RECTIFIER ASSEMBLIES

These assemblies are designed both for replacement and for new designs and offer a convenient solution to bridge rectifier requirements. They are built in a modular system using standard devices and hardware with Z-MOV™ (Zenamic Metal Oxide Varistors) used for transient suppression.

I-R No.	I_{DC} Amps NC	I_{DC} Amps FA	I_{FSM} Surge Amps	V_{AC} rms Volts	Net Each, Lots of 1-4	Net Each, Lots of 5 Up
SINGLE-PHASE, FULL-WAVE RECTIFIER ASSEMBLIES						
CB15P2AA40	15	35	300	180	$ 33.00	$ 31.46
CB15P2AA60	15	35	300	260	36.03	34.32
CB15P2AA100	15	35	300	440	51.04	48.62
CB50G2AA40	50	70	500	180	61.49	58.58
CB50G2AA60	50	70	500	260	69.36	66.06
CB50G2AA100	50	70	500	440	100.43	95.64
CB50G2AA120	50	70	500	550	119.08	113.41
CB70H2AA40	70	70	500	180	67.38	64.19
CB70H2AA60	70	70	500	260	74.75	71.17
CB70H2AA100	70	70	500	440	105.82	100.76
CB70H2AA120	70	70	500	550	126.72	120.67
CB100H2AA40	100	120	1200	180	74.69	71.12
CB100H2AA60	100	120	1200	260	93.01	88.55
CB100H2AA100	100	120	1200	440	134.70	128.26
CB100H2AA120	100	120	1200	550	162.91	155.16
CB120K2AA40	120	120	1200	180	86.41	82.28
CB120K2AA60	120	120	1200	260	101.15	96.36
CB120K2AA100	120	120	1200	440	142.83	136.02
CB120K2AA120	120	120	1200	550	171.05	162.91
CB200K2AA40	200	250	3000	180	148.89	141.79
CB200K2AA60	200	250	3000	260	157.19	149.71
CB200K2AA100	200	250	3000	440	196.57	187.22
CB200K2AA120	200	250	3000	550	209.88	199.87
CB250K4AA40	250	250	3000	180	173.09	164.84
CB250K4AA60	250	250	3000	260	181.78	173.14
CB250K4AA100	250	250	3000	440	221.21	210.71
CB250K4AA120	250	250	3000	550	234.36	223.19
CB300K4AA40	300	500	5000	180	221.98	212.19
CB300K4AA60	300	500	5000	260	235.02	223.80
CB300K4AA100	300	500	5000	440	352.99	336.16
CB300K4AA120	300	500	5000	550	424.55	404.36
SINGLE-PHASE, HALF-CONTROLLED BRIDGE ASSEMBLIES						
CBC120K4AA40	120	120	1600	120	$442.20	$422.29
CBC120K4AA60	120	120	1600	120/240	513.70	446.90
CBC250V4AA40	250	250	4250	120	652.30	621.50
CBC250V4AA60	250	250	4250	120/240	660.00	628.58
SINGLE-PHASE, AC PHASE-CONTROLLED SWITCH ASSEMBLIES						
CPA120K2AA40	120	120	1600	120	$356.40	$339.90
CPA120K2AA60	120	120	1600	120/240	378.40	360.80
AC CONTACTOR, ZERO-CROSSING SWITCH ASSEMBLIES						
CA120K2AA40	120	120	1600	180	$299.20	$284.90
CA120K2AA60	120	120	1600	260	431.20	410.30
CA120K2AA100	120	120	1600	440	491.70	468.60
CA250X1AA40	250	350	4250	180	489.50	466.40
CA250X1AA60	250	350	4250	260	500.50	476.30
CA250X1AA100	250	350	4250	440	579.70	552.20
CA300X1AA40	300	500	7000	180	553.30	526.90
CA300X1AA60	300	500	7000	260	578.60	551.10
CA300X1AA100	300	500	7000	440	673.20	641.30

I-R No.	I_{DC} Amps NC	I_{DC} Amps FA	I_{FSM} Surge Amps	V_{AC} rms Volts	Net Each, Lots of 1-4	Net Each, Lots of 5 Up
THREE-PHASE, FULL-WAVE RECTIFIER ASSEMBLIES						
CT50G2AA40	50	80	500	180	$ 81.24	$ 77.39
CT50G2AA60	50	80	500	260	95.37	90.81
CT50G2AA100	50	80	500	440	146.52	139.54
CT50G2AA120	50	80	500	550	176.00	167.64
CT80H2AA40	80	100	500	180	89.43	85.19
CT80H2AA60	80	100	500	260	100.72	95.92
CT80H2AA100	80	100	500	440	151.97	144.65
CT80H2AA120	80	100	500	550	182.49	173.80
CT150K3AA40	150	180	1200	180	126.29	120.29
CT150K3AA60	150	180	1200	260	148.72	141.63
CT150K3AA100	150	180	1200	440	215.82	205.54
CT150K3AA120	150	180	1200	550	258.06	245.80
CT300K3AA40	300	400	3000	180	276.22	215.44
CT300K3AA60	300	400	3000	260	238.65	227.32
CT300K3AA100	300	400	3000	440	311.52	296.67
CT300K3AA120	300	400	3000	550	331.43	315.65
CT400K6AA40	400	400	3000	180	261.97	249.48
CT400K6AA60	400	400	3000	260	275.61	262.52
CT400K6AA100	400	400	3000	440	348.48	331.16
CT400K6AA120	400	400	3000	550	368.39	350.85
CT500K6AA40	500	700	5000	180	326.98	311.41
CT500K6AA60	500	700	5000	260	346.45	329.95
CT500K6AA100	500	700	5000	440	523.38	398.37
CT500K6AA120	500	700	5000	550	630.69	600.66
CT700U6AA40	700	700	5000	180	389.57	371.03
CT700U6AA60	700	700	5000	260	446.00	424.77
CT700U6AA100	700	700	5000	440	623.04	593.34
CT700U6AA120	700	700	5000	550	746.63	711.06
CT1000V6AA40	1000	1200	8000	180	723.36	688.93
CT1000V6AA60	1000	1200	8000	260	759.55	723.36
CT1000V6AA100	1000	1200	8000	440	1086.47	1034.70
CT1000V6AA120	1000	1200	8000	550	1309.50	1247.13
CT1500X6AA60	1500	2200	10000	260	1443.70	1374.95
CT1500X6AA100	1500	2200	10000	440	1487.15	1416.36
CT1500X6AA120	1500	2200	10000	550	1500.24	1428.79
THREE-PHASE, HALF-CONTROLLED BRIDGE ASSEMBLIES						
CTC150K6AA60	150	180	1600	240	$ 761.20	$ 724.90
CTC150K6AA100	150	180	1600	240/440	929.50	885.50
CTC350V6AA60	350	400	4250	240	1071.40	1020.80
CTC350V6AA100	350	400	4250	240/440	1378.30	1312.30

SOLID-STATE TUBE REPLACEMENTS

Replacements for vacuum and mercury-vapor rectifier tubes. Advantages of solid-state replacements include: no filament power, no warm-up time, long life, and high shock resistance.

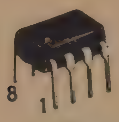
I-R No.	V_{RRM} Volts	V_{FM} Volts	I_F mA	Replaces	Net Each, Lots of 1-9	Net Each, Lots of 10-24	Net Each, Lots of 25-99
1N570	1500	1.8	75	6X4, 12X4, 80, 82, 83, 83V	$17.50	$15.31	$13.12
1N1150A	1600	3.0	750	....	17.50	15.31	13.12
1N1237	1600	3.0	750	0Z4, 5X4, 5Y4, 6AX5, 6X5	17.50	15.31	13.12
1N1238	1600	3.0	750	5AV4, 5AW4, 5AZ4, 5T4, 5U4, 5V4, 5W4, 5Y3, 5Z4	17.50	15.31	13.12
1N1239	2800	6.0	500	5R4	20.83	18.22	15.61
1N1262	4500	4.5	250	6AU4, 6AX4, 6BL4, 6W4, 12AX4, 17AX4, 25W4	17.48	15.29	13.11
1N2389	1600	5.3	600	5AY4, 5AW4, 5AX4, 5T4, 5U4, 5V4, 5W4, 5Y3, 5Z4, 6004	17.50	15.31	13.12
1N2490	1600	3.0	500	6AX4	17.50	15.31	13.12

I-R No.	V_{RRM} Volts	V_{FM} Volts	I_F mA	Replaces	Net Each, Lots of 1-9	Net Each, Lots of 10-24	Net Each, Lots of 25-99
1N2630	1500	1.8	85	6X4, 12X4	$17.50	$15.31	$13.12
1N2631	1600	1.8	600	5AW4, 5AX4, 5AZ4, 5T4, 5U4, 5Y3, 6004	17.50	15.31	13.12
1N2632	2800	2.7	200	....	20.83	18.22	15.61
1N2633	1600	1.8	600	0Z4, 5X4, 6AX5, 6W5, 6X5, 6ZY5, 5839, 5852	17.50	15.31	13.12
1N2634	1600	3.6	600	5Z3, 80, 82, 83	17.50	15.31	13.12
1N2635	1500	3.6	85	6X4, 12X4	17.50	15.31	13.12
1N2636	1500	3.6	85	84/6Z4	17.50	15.31	13.12
1N2637	10400	11.0	250	3B28, 249B, 866, 866A	31.81	27.83	23.86
ST-8	1250	6.2	80	0Z4, 6X5	19.09	16.71	14.31
ST-9	10000	14.0	1250	8008	92.46	80.91	69.34
ST-10	10000	14.0	1250	872A	92.46	80.91	69.34
ST-11	7500	8.1	125	816	23.12	20.23	17.33
ST-12	40000	54.0	100	8020	101.68	88.97	76.25
ST-13	1275	1.8	130	6BW4, 12BW4	15.97	13.96	11.97
ST-14	1600	5.3	600	5AV4, 5AW4, 5AX4, 5T4, 5U4, 5Y4, 5W4, 5Y3, 5Z4, 6004	19.01	16.63	14.28
ST-15	15000	15.0	1750	673	109.74	95.99	82.24
ST-16	15000	15.0	1750	575A	109.74	95.99	82.24

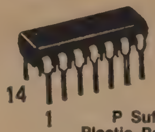
MOTOROLA
Semiconductors

DIGITAL INTEGRATED CIRCUITS

McMOS™ MC14000 SERIES COMPLEMENTARY MOS



P suffix
Plastic Package
CASE 626



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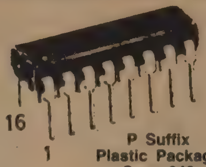
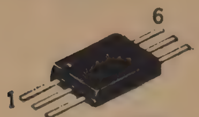


P Suffix
Plastic Package
Case 648

P Suffix
Plastic Package
Case 649



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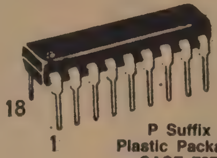
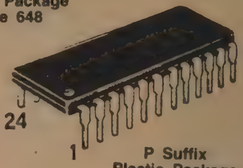
CASE 704



P Suffix
Plastic Package
CASE 707



P Suffix
Plastic Package
CASE 709

Output logic excursion is independent of fan out; diode protection on all inputs. Temperature, voltage and package descriptions are given in table below. All devices are available in chip form. Types with **B** in part number conform to the JEDEC B-Series specifications. Listed units in ceramic packages are in Case 620 unless otherwise noted; plastic packages are in Case 648 unless otherwise noted.

SUFFIX LETTER DESIGNATORS

Suffix	Description
AL	3 to 18 V, −55°C to +125°C, ceramic package
CL	3 to 18 V, −40°C to +85°C, ceramic package
CP	3 to 18 V, −40°C to +85°C, plastic package
L	Limited voltage range, limited temperature range, ceramic package
P	Limited voltage range, limited temperature range, plastic package

Suffix	Description
EFL	3 to 18 V, −55°C to +125°C, ceramic package
FL	3 to 18 V, −40°C to +85°C, ceramic package
FP	3 to 18 V, −40°C to +85°C, plastic package
EVL	3 to 6 V, −55°C to +125°C, ceramic package
VL	3 to 6 V, −40°C to +85°C, ceramic package
VP	3 to 6 V, −40°C to +85°C, plastic package
Z	Limited voltage range, limited temperature range, leadless ceramic package

Motorola Type	Function	Suffix	Net Each, Lots of 1-9	Net Each, Lots of 10-49	Suffix	Net Each, Lots of 1-9	Net Each, Lots of 10-49	Suffix	Net Each, Lots of 1-9	Net Each, Lots of 10-49
MC14000UB	Dual 3-input NOR gate/inverter	-AL†	$0.88	$0.84	-CL†	$0.76	$0.73	-CP▲	$0.59	$0.56
MC14001B	Quad 2-input NOR gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14001UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14002B	Dual 4-input NOR gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14002UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14006B	18-bit static shift register	-AL†	3.12	2.98	-CL†	2.70	2.57	-CP▲	2.08	1.98
MC14007UB	Dual comp. pair plus inverter	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14008B	4-bit full adder	-AL	2.76	2.63	-CL	2.39	2.28	-CP	1.83	1.75
MC14011B	Quad 2-input NAND gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14011UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14012B	Dual 4-input NAND gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14012UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14013B	Dual D flip-flop	-AL†	1.58	1.51	-CL†	1.36	1.30	-CP▲	1.06	1.01
MC14014B	8-bit static shift register	-AL	2.76	2.63	-CL	2.39	2.28	-CP	1.83	1.75
MC14015B	Dual 4-bit static shift register	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14016B	Quad ana. switch/multiplexer	-AL†	1.58	1.51	-CL†	1.36	1.30	-CP▲	1.06	1.01
MC14017B	Decade counter/divider	-AL	2.76	2.63	-CL	2.39	2.28	-CP	1.83	1.75
MC14018B	Preset. divide by N counter	-AL	2.51	2.39	-CL	2.17	2.07	-CP	1.67	1.59
MC14020B	14-bit binary counter	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14021B	8-bit static shift register	-AL	2.76	2.63	-CL	2.39	2.28	-CP	1.83	1.75
MC14022B	Octal counter/divider	-AL	2.76	2.63	-CL	2.39	2.28	-CP	1.83	1.75
MC14023B	Triple 3-input NAND gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14023UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14024B	7-stage ripple counter	-AL†	2.35	2.23	-CL†	2.02	1.93	-CP▲	1.56	1.48
MC14025B	Triple 3-input NOR gate	-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14025UB		-AL†	.88	.84	-CL†	.76	.73	-CP▲	.59	.56
MC14027B	Dual J-K flip-flop	-AL	1.58	1.51	-CL	1.36	1.30	-CP	1.06	1.01
MC14028B	BCD-to-decimal decoder	-AL	2.23	2.12	-CL	1.94	1.84	-CP	1.50	1.43
MC14029B	Bin./Dec. up/down ctr.	-AL	3.12	2.98	-CL	2.71	2.58	-CP	2.08	1.98
MC14032B	Triple serial adder (+ logic)	-AL	4.83	4.60	-CL	4.18	3.98	-CP	3.21	3.06
MC14034B	8-bit univ. bus register	-AL*	7.70	7.33	-CL*	6.67	6.36	-CP●	5.13	4.89
MC14035B	4-bit shift register	-AL	4.09	3.90	-CL	3.55	3.38	-CP	2.73	2.60
MC14038B	Triple serial adder (− logic)	-AL	4.83	4.60	-CL	4.18	3.98	-CP	3.21	3.06
MC14040B	12-bit binary counter	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14042B	Quad latch	-AL	2.35	2.23	-CL	2.02	1.93	-CP	1.56	1.48
MC14043B	Quad NOR R-S latch	-AL	2.19	2.08	-CL	1.89	1.80	-CP	1.45	1.38
MC14044B	Quad NAND R-S latch	-AL	2.19	2.08	-CL	1.89	1.80	-CP	1.45	1.38
MC14046B	Phase locked loop	-AL	3.46	3.30	-CL	2.99	2.85	-CP	2.30	2.19
MC14049UB	Hex inverter/buffer	-AL	1.58	1.51	-CL	1.36	1.30	-CP	1.06	1.01
MC14050B	Hex buffer	-AL	1.58	1.51	-CL	1.36	1.30	-CP	1.06	1.01
MC14051B	8-channel analog multiplexer	-AL	2.86	2.72	-CL	2.48	2.36	-CP	1.91	1.82
MC14052B	Dual 4-ch. analog multiplexer	-AL	2.86	2.72	-CL	2.48	2.36	-CP	1.91	1.82
MC14053B	Triple 2-ch. analog multiplexer	-AL	2.86	2.72	-CL	2.48	2.36	-CP	1.91	1.82
MC14066B	Quad analog switch	-AL†	1.76	1.68	-CL†	1.53	1.45	-CP▲	1.17	1.12

†Case 632. ▲Case 646. *Case 623. ●Case 709. ♦Case 680. ⋆Case 707. ‡Case 716. #Case 710. ■Case 719. ◇Case 690. **Case 711. §Case 715.
●●Case 740. ••Case 736. ##Case 708.

COMPLEMENTARY CMOS LISTING CONTINUED ON FOLLOWING PAGE

McMOS™ MC 14000 SERIES COMPLEMENTARY MOS (Cont'd)

Motorola Type	Function	Suffix	Net Each, Lots of		Suffix	Net Each, Lots of		Suffix	Net Each, Lots of	
			1-9	10-49		1-9	10-49		1-9	10-49
MC14068B	8-input NAND gate	-AL‡	$0.88	$.084	-CL‡	$0.76	$0.73	-CP▲	$0.59	$0.56
MC14069UB	Hex inverter	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14070B	Quad Exclusive-OR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14071B	Quad 2-input OR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC10072B	Dual 4-input OR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14073B	Triple 3-input AND gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14075B	Triple 3-input OR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14076B	Quad D type register	-AL	3.46	3.30	-CL	2.99	2.85	-CP	2.30	2.19
MC14077B	Quad Exclusive-NOR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14078B	8-input NOR gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14081B	Quad 2-input AND gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14082B	Dual 4-input AND gate	-AL‡	.88	.84	-CL‡	.76	.73	-CP▲	.59	.56
MC14093B	Quad 2-in. NAND Schmitt trig.	-AL‡	1.72	1.63	-CL‡	1.48	1.41	-CP▲	1.14	1.09
MC14094B	8-stage shift/store reg.	-AL	5.62	5.35	-CL	4.87	4.64	-CP	3.75	3.58
MC14099B	8-bit addressable latch	-AL	3.81	3.63	-CL	3.30	3.14	-CP	2.54	2.42
MC14160B	Decade counter (asyn. clear)	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14161B	Binary counter (asyn. clear)	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14162B	Decade counter (syn. clear)	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14163B	Binary counter (syn. clear)	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14174B	Hex D flip-flop	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14175B	Quad D flip-flop	-AL	2.80	2.67	-CL	2.43	2.32	-CP	1.88	1.79
MC14194B	4-bit univ. shift register	-AL	3.12	2.98	-CL	2.70	2.57	-CP	2.08	1.98
MC14406	Pulse code modulator	-L■	37.41	35.62	-P#	33.08	31.51	.....	....	....
MC14407	Pulse code modulator	-L‡	35.50	33.81	-P●	31.18	29.69	.....	....	....
MC14408	Binary-to-phone pulse conv.	-L	23.05	21.95	-P	19.66	18.73	.....	....	....
MC14409	Binary-to-phone pulse conv.	-L	23.05	21.95	-P	19.66	18.73	.....	....	....
MC14410	2-of-8 tone encoder	-L	20.19	19.23	-P	17.26	16.44	.....	....	....
MC14411	Bit rate generator	-L*	22.42	21.35	-P●	17.26	16.44	.....	....	....
MC14412	Low speed MODEM	-FL◇	26.91	25.63	-FP	20.69	19.70	-VL◇	20.18	19.22
		-VP	15.53	14.79	.....	....	....	.....	....	....
MC14415	Quad timer/driver	-EFL◇	16.57	15.78	FL◇	14.37	13.69	-FP	11.06	10.53
		-EVL◇	12.43	11.84	.....	....	....	.....	....	....
MC14416	PCM time slot assigner	-L	12.61	12.01	-P	11.35	10.81	.....	....	....
MC14418	PCM time slot assigner	-L	17.70	16.86	-P	15.18	14.45	.....	....	....
MC14419	2-of-8 keypad-to-binary enc.	-L	16.00	15.24	-P	11.42	10.88	.....	....	....
MC14433	3½ digit A/D converter	-L*	27.13	25.84	-P●	20.88	19.89	.....	....	....
MC14435	3½ digit A/D logic subsystem	-EFL	17.29	16.47	-FL	14.97	14.26	-FP	11.53	10.98
		-EVL	12.96	12.35	-VL	11.23	10.70	-VP	8.64	8.23
MC14443	µP A/D converter	-L	4.41	4.20	-P	4.18	3.98	.....	....	....
MC14447	µP A/D converter	-L	48.42	46.11	-P	37.25	35.47	.....	....	....
MC14457	Transmitter	-L*	8.58	8.17	-P	6.60	6.28	.....	....	....
MC14458	Receiver	-L	17.83	16.98	-P	13.73	13.07	.....	....	....
MC14460	Auto speed control processor	-L	22.83	21.74	-P	17.13	16.31	.....	....	....
MC14466	Low cost smoke detector	.....	....	....	-P	3.52	3.35	.....	....	....
MC14469	Addressable asynchronous receiver/transmitter	-L§	26.15	24.90	-P**	19.61	18.67	.....	....	....
MC14490	Hex contact bounce eliminator	-EFL	8.75	8.34	-FL	7.61	7.25	-FP	5.60	5.34
		-EVL	6.64	6.33	-VL	5.82	5.54	-VP	4.24	4.04
MC14495	BCD-to-7 segment decoder driver/latch	-L1	5.78	5.48	-P1	3.96	3.77	.....	....	....
MC14500B	Industrial control unit	-AL	12.01	11.44	-CL	10.41	9.92	-CP	8.01	7.63
MC14501UB	Triple gate	-AL	.88	.84	-CL	.76	.73	-CP	.59	.56
MC14502B	Strobed hex inverter/buffer	-AL	3.81	3.63	-CL	3.30	3.14	-CP	2.54	2.42
MC14503B	Hex 3-state buffer	-AL	1.86	1.77	-CL	1.61	1.54	-CP	1.23	1.17
MC14504B	Hex TTL or CMOS to CMOS level shifter	-AL	3.56	3.39	-CL	3.09	2.95	-CP	2.38	2.26
MC14506B	Dual exp. AND/OR/invert gate	-AL	2.20	2.10	-CL	1.91	1.82	-CP	1.47	1.40
MC14508B	Dual 4-bit latch	-AL*	9.97	9.50	-CL*	8.64	8.23	-CP●	6.64	6.33
MC14510B	BCD up/down counter	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14511B	BCD-7-seg. latch/dec./driver	-AL	3.17	3.02	-CL	2.74	2.61	-CP	2.11	2.01
MC14512B	8-channel data selector	-AL	3.12	2.98	-CL	2.70	2.57	-CP	2.08	1.98
MC14513B	BCD-7-seg. latch/dec./driver	-AL◆	4.21	4.01	-CL◆	3.65	3.48	-CP*	2.80	2.67
MC14514B	4/16 line decoder (high)	-AL*	6.41	6.10	-CL*	5.54	5.28	-CP●	4.27	4.06
MC14515B	4/16 line decoder (low)	-AL*	6.41	6.10	-CL*	5.54	5.28	-CP●	4.27	4.06
MC14516B	Binary up/down counter	-AL	3.49	3.32	-CL	3.04	2.89	-CP	2.33	2.22
MC14517B	Dual 64-bit static shift reg.	-AL◇	15.47	14.73	-CL◇	13.40	12.76	-CP	10.31	9.82
MC14518B	Dual BCD up counter	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14519B	4-bit AND/OR selector	-AL	1.76	1.68	-CL	1.53	1.45	-CP	1.17	1.12
MC14520B	Dual BCD up counter	-AL	3.23	3.07	-CL	2.80	2.67	-CP	2.16	2.05
MC14521B	24-stage frequency divider	-AL	7.83	7.46	-CL	6.79	6.47	-CP	5.22	4.97
MC14522B	BCD divide by N counter	-AL	3.97	3.78	-CL	3.45	3.28	-CP	2.65	2.53
MCM14524	256 × 4 bit ROM	-AL	23.40	22.29	-CL	20.28	19.31	-CP	15.60	14.86
MC14526B	Binary divide by N counter	-AL	3.97	3.78	-CL	3.45	3.28	-CP	2.65	2.53
MC14527B	BCD rate multiplier	-AL	3.51	3.34	-CL	3.04	2.89	-CP	2.33	2.22
MC14528B	Dual monostable multivibrator	-AL	3.97	3.78	-CL	3.45	3.28	-CP	2.65	2.53
MC14529B	Dual 4-channel multiplexer	-AI	4.30	4.09	-CL	3.72	3.55	-CP	2.87	2.74
MC14530B	Dual 5-input maj. logic gate	-AL	2.68	2.56	-CL	2.33	2.22	-CP	1.79	1.70
MC14531B	12-bit parity tree	-AL	3.12	2.98	-CL	2.71	2.58	-CP	2.08	1.98
MC14532B	8-bit parity encoder	-AL	6.63	6.31	-CL	5.75	5.48	-CP	4.41	4.20
MC14534B	Real time 5-decade counter	-AL*	20.15	19.19	-CL*	17.46	16.63	-CP●	13.43	12.79
MC14536B	Programmable timer	-AL	10.69	10.18	-CL	9.27	8.83	-CP	7.13	6.79
MCM14537	256 × 1 bit static RAM	-AL◇	45.60	43.43	-CL◇	39.52	37.64	-CP	30.40	28.95
MC14538B	Dual monostable multivibrator	-AL	3.97	3.78	-CL	3.45	3.28	-CP	2.65	2.53
MC14539B	Dual 4-channel multiplexer	-AL	3.17	3.02	-CL	2.76	2.63	-CP	2.11	2.01
MC14541B	Oscillator/timer	-AL†	3.96	3.77	-CL†	3.43	3.27	-CP▲	2.64	2.51
MC14543B	BCD-7-seg. latch/dec./driver	-AL	5.79	5.52	-CL	5.02	4.78	-CP	3.86	3.67
MC14544B	BCD-to-7 segment latch/ decoder/driver	-AL◆	6.45	6.15	-CL◆	5.60	5.34	-CP⋆	4.31	4.11
MC14547B	BCD-to-7 segment latch/ decoder/driver	-AL	3.64	3.46	-CL	3.15	3.00	-CP	2.42	2.31
MC14549B	Succ. approximation register	-AL	16.60	15.81	-CL	14.38	13.70	-CP	11.07	10.54

†Case 632. ▲Case 646. *Case 623. ●Case 709. ◆Case 680. ⋆Case 707. ‡Case 716. #Case 710. ■Case 719. ◇Case 690. **Case 711. §Case 715. ●●Case 740. ■■Case 736. ##case 708.

SEE OTHER MOTOROLA IC PAGES FOR CASE ILLUSTRATIONS

COMPLEMENTARY CMOS LISTING CONTINUED ON FOLLOWING PAGE

McMOS™ MC 14000 SERIES COMPLEMENTARY MOS (Cont'd)

Motorola Type	Function	Suffix	Net Each, Lots of		Suffix	Net Each, Lots of		Suffix	Net Each, Lots of	
			1-9	10-49		1-9	10-49		1-9	10-49
MC14551B	Quad 2-input multiplexer	-AL	$3.28	$3.13	-CL	$2.87	$2.74	-CP	$2.11	$2.01
MC14553B	3-digit BCD counter	-AL	8.68	8.27	-CL	7.52	7.16	-CP	5.79	5.52
MC14554B	2 × 2 bit par. bin. multiplier	-AL	5.47	5.21	-CL	4.75	4.52	-CP	3.65	3.48
MC14555B	Dual binary to 1-of-4 decoder	-AL	2.52	2.40	-CL	2.19	2.08	-CP	1.69	1.61
MC14556B	Dual bin. to 1-of-4 dec. inv.	-AL	2.52	2.40	-CL	2.19	2.08	-CP	1.69	1.61
MC14557B	1-to-64 bit shift register	-AL	8.68	8.27	-CL	7.52	7.13	-CP	5.79	5.52
MC14558B	BCD-to-7-segment decoder	-AL	3.89	3.70	-CL	3.37	3.21	-CP	2.60	2.47
MC14559B	Succ. approximation register	-AL	16.60	15.81	-CL	14.38	13.70	-CP	11.07	10.54
MC14560B	NBCD adder	-AL	8.36	7.96	-CL	7.24	6.90	-CP	5.57	5.31
MC14561B	9's complementer	-AL†	3.45	3.28	-CL†	2.99	2.85	-CP▲	2.30	2.19
MC14562B	128-bit static shift register	-AL†	11.13	10.60	-CL†	9.65	9.19	-CP▲	7.42	7.07
MC14566B	Ind. time base generator	-AL	5.23	4.99	-CL	4.53	4.32	-CP	3.49	3.32
MC14568B	Phase comp./programmable counter	-AL	9.52	9.06	-CL	8.26	7.86	-CP	6.35	6.05
MC14569B	Dual prog. counter	-AL	5.46	5.20	-CL	4.72	4.50	-CP	3.64	3.46
MC14572UB	Hex gate	-AL	1.70	1.62	-CL	1.48	1.41	-CP	1.14	1.09
MC14573	Quad prog. op-amp	.....	....	....	-CL	5.22	4.97	-CP	4.02	3.83
MC14574	Quad prog. comparator	.....	....	....	-CL	5.22	4.97	-CP	4.02	3.83
MC14575	Quad prog. op-amp/comp.	.....	....	....	-CL	5.22	4.97	-CP	4.02	3.83
MC14580B	4 × 4 multiport register	-AL*	12.76	12.15	-CL*	11.06	10.53	-CP●	8.51	8.10
MC14581B	4-bit arith. logic unit	-AL*	8.46	8.06	-CL*	7.33	6.98	-CP●	5.65	5.38
MC14582B	Lookahead carry block	-AL	3.02	2.88	-CL	2.61	2.49	-CP	2.01	1.91
MC14583B	Dual Schmitt trigger	-AL	3.72	3.55	-CL	3.23	3.07	-CP	2.48	2.36
MC14584B	Hex Schmitt trigger	-AL†	1.88	1.79	-CL†	1.63	1.55	-CP▲	1.25	1.19
MC14585B	4-bit magnitude comparator	-AL	3.96	3.77	-CL	3.43	3.27	-CP	2.64	2.51
MC14597B	8-bit latch with ctr.	-AL	8.18	7.79	-CL	7.10	6.76	-CP	5.46	5.20
MC14598B	8-bit address. latch	-AL◆	9.52	9.06	-CL	8.26	7.86	-CP⋆	6.35	6.05
MC14599B	8-bit addressable latch	-AL◆	8.18	7.79	-CL◆	7.10	6.76	-CP⋆	5.46	5.20
MC142100	4 × 4 crosspoint switch	-AL	7.55	7.19	-CL	6.07	5.78	-CP	3.78	3.60
MC145100	4 × 4 crosspoint switch	-AL	6.42	6.12	-CL	5.16	4.92	-CP	3.23	3.07
MC145104	PLL freq. synthesizer	-L	6.72	6.40	-P	5.16	4.92	.....	.....	.....
MC145106	PLL freq. synthesizer	-L◆	8.45	8.04	-P*	6.51	6.20	.....	.....	.....
MC145107	PLL freq. synthesizer	-L	6.72	6.40	-P	5.16	4.92	.....	.....	.....
MC145109	PLL freq. synthesizer	-L	6.72	6.40	-P	5.16	4.92	.....	.....	.....
MC145112	PLL freq. synthesizer	-L◆	8.17	7.78	-P*	6.28	5.98	.....	.....	.....

†Case 632. ▲Case 646. *Case 623. ●Case 709. ◆Case 680. ⋆Case 707.

MTTL III™ MC3000 AND MC3100 SERIES

Designed for general purpose digital applications. High operating speed (30-50 MHz clock rate), good external noise immunity, high fan-out and capability of driving lines up to 600 pF capacitance. Temperature range 0° C to +75° C (MC3000 Series), −55° C to +125° C (MC3100 Series). $V_{CC} = 5.0$ V; $T_A = 25°$ C. **L** suffix denotes dual inline ceramic pkg. (Case 632, TO-116), **F** flat ceramic pkg. (Case 607, TO-86) and **P** dual inline plastic pkg. (Case 646, TO-116).

Function	Typical		Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
	t_{pd} ns	P_D mW		1-9	10-49		1-9	10-49
Quad 2-input AND gate	9.0	112	MC3001L	$4.75	$4.52	MC3101L	$5.97	$5.68
Quad 2-input NOR gate	6.0	122	MC3002L	4.90	4.66	MC3102L	6.13	5.84
Quad 2-input exclusive-NOR gate	14.0	85	MC3021L	5.67	5.40	MC3121L	7.20	6.86
Dual 4-input NAND power gate	6.0	70	MC3022L	5.67	5.40	MC3122L	7.20	6.86
Dual 3-input 3-output AND series terminated line driver	9.0	56	MC3026L	4.75	4.52	MC3126L	5.97	5.68
Dual type D flip-flop	#	120	MC3060L	6.13	5.84	MC3160L	7.36	7.01
Dual J-K flip-flop	§	100	MC3061L	6.13	5.84	MC3161L	7.36	7.01
Dual J-K flip-flop	§	100	MC3062L	6.13	5.84	MC3162L	7.36	7.01

§f=50 MHz. #f=30 MHz.

SERIES MC3000 P PACKAGES

Motorola Type	P Suffix Net Each, Lots of 1-9	10-49
MC3001	$3.49	$3.32
MC3002	3.49	3.32
MC3021	4.14	3.94

Motorola Type	P Suffix Net Each, Lots of 1-9	10-49
MC3022	$4.14	$3.94
MC3026	3.45	3.28

Motorola Type	P Suffix Net Each, Lots of 1-9	10-49
MC3060	$5.67	$5.40
MC3061	4.65	4.43
MC3062	4.65	4.43

SERIES MC3100 F PACKAGES

Motorola Type	F Suffix Net Each, Lots of 1-9	10-49
MC3101F	$8.42	$8.02
MC3102F	8.39	7.99

Motorola Type	F Suffix Net Each, Lots of 1-9	10-49
MC3121F	$10.00	$9.53
MC3122F	10.00	9.53

Motorola Type	F Suffix Net Each, Lots of 1-9	10-49
MC3126F	$8.42	$8.02
Mc3160F	9.35	8.91
MC3161F	9.35	8.91
MC3162F	9.35	8.91

SEE OTHER MOTOROLA IC PAGES FOR CASE ILLUSTRATIONS

MECL III™ MC1600 SERIES

State-of-the-art, emitter coupled logic family with sub-nsec local propagation delays. Multilayer metalization for optimum performance. Compatible with MECL II and MECL 10,000™ Series. Temperature, 0° C to +75° C. $V_{CC}=0$ V; $V_{EE}=-5.2$ V; $T_A=25°$ C.

Function	Typical		Case 620			Case 650		
			Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
	t_{pd} nsec	P_D mW		1-9	10-49		1-9	10-49
Voltage controlled oscillator	▲	150	MC1648L•	$ 8.74	$ 8.32	MC1648F§	$ 8.08	$ 7.69
Dual A/D Comparator	3.5	275	MC1650L	29.18	27.79	....	....	....
Dual A/D Comparator	2.5	275	MC1651L	29.18	27.79	MC1651F	32.19	30.65
Binary counter (high Z)	☆	750‡	MC1654L	95.17	90.63	....	....	....
Voltage controlled multivibrator	☒	125	MC1658L ◆	7.77	7.40	....	....	....
Dual 4-input OR-NOR gate (high Z)	1.1	120	MC1660L	16.64	15.85	....	....	....
Quad 2-input NOR gate (high Z)	1.1	240	MC1662L	16.64	15.85	....	....	....
Quad 2-input OR gate (high Z)	1.1	240	MC1664L	16.64	15.85	....	....	....
Dual clocked R-S flip-flop (high Z)	1.8	220	MC1666L	32.99	31.42	....	....	....
Dual clocked latch (high Z)	1.8	220	MC1668L	32.99	31.42	....	....	....
Master-slave type D flip-flop (high Z)	*	220	MC1670L	29.99	28.56	....	....	....
Triple 2-input exclusive-OR gate (high Z)	1.3	220	MC1672L	20.82	19.83	....	....	....
Triple 2-input exclusive-NOR gate (high Z)	1.3	220	MC1674L	20.82	19.83	....	....	....
Bi-quinary counter (high Z)	†	750‡	MC1678L	95.17	90.63	....	....	....
Dual 4-5 input OR/NOR gate	.....	.....	MC1688L	18.92	18.02	....	....	....
UHF prescaler type D flip-flop	*	200	Mc1690L	39.05	37.19	....	....	....
Quad line receiver	1.1	220	MC1692L	16.64	15.85	MC1692F	19.65	18.71
4-bit shift register (high Z)	☆	750‡	MC1694L	95.24	90.70	....	....	....
1 GHz divide-by-four prescaler	.....	.....	MC1697L#	21.41	20.39	....	....	....
1 GHz divide-by-four counter	.....	.....	MC1699L	24.67	23.49	MC1699F	....	....

*Toggle frequency = 350 MHz typ. †Max. operating frequency = 350 MHz typ. ‡Requires heat sink IERC LIC-14A2CB or equivalent. ▲Max. operating frequency = 225 MHz type. •Case 632; also available in Case 646. ☆Max. operating frequency = 325 MHz typ. ☒Max. operating frequency = 150 MHz typ. §Case 607.

LSI MC8500 SERIES

Temperature range, 0° C to +75° C. Features include lower system costs, improved reliability, lower power drain and more compact system architecture.

Function	Motorola Type	Case	Net Each, Lots of		Motorola Type	Case	Net Each, Lots of	
			1-9	10-49			1-9	10-49
CRCC generator	MC8500L	623	$51.47	$49.02	MC8500P	649	$46.78	$44.55
Error pattern register	MC8501L	620	46.19	43.99	MC8501P	648	41.94	39.94
LRCC/data register	MC8502L	623	51.47	49.02	MC8502P	649	46.78	44.55
16-bit univ. polynomial gen.	MC8503L	632	29.03	27.65	MC8503P	646	26.10	24.86
4-bit univ. polynomial gen.	MC8504L	620	17.60	16.76	MC8504P	648	16.13	15.36
16-bit polynomial gen.	MC8506L	620	29.03	27.65	MC8506P	648	26.10	24.86
Priority inter. controller	MC8507L	623	30.65	29.19	MC8507P	649	26.98	25.70
Deskew/queue register	MC8520L	623	109.68	104.46	....	.....	....	....

MHTL™ MC660 SERIES

Feature outstanding noise immunity; provide error-free operation in high noise environments far beyond the tolerance of other IC families. Temperature −30° C to +75° C. $V_{CC}-15$ V ± 1.0 VDC; $T_A=25°$ C. MHTL ceramic dual inline devices are available with specification over the −55° C to +125° C temperature range and/or with hi-rel processing on special order. **L** suffix denotes dual inline ceramic package (Case 620, 632), **P** suffix denotes dual inline plastic package (Case 646, 648).

Function		Typical		Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
		t_{pd} nsec	P_D mW		1-9	10-49		1-9	10-49
Expandable dual 4-input gate	Active pullup	110	88/26*	MC660L	$4.47	$4.26	MC660P	$3.37	$3.21
	Passive pullup	125	88/26*	MC661L	4.47	4.26	MC661P	3.37	3.21
Expandable dual 4-input line driver		140	180/26*	MC662L	4.47	4.26	MC662P	3.37	3.21
Dual J-K flip-flop		3.0†	200	MC663L	7.60	7.23	MC663P	5.69	5.42
Master-slave R-S flip-flop		3.0†	160	MC664L	7.60	7.23	MC664P	5.69	5.42
Triple level translator		40	83‡	MC665L	4.77	4.54	MC665P	3.37	3.21
Triple level translator		75	105	MC666L	4.77	4.54	MC666P	3.64	3.46
Dual monostable multivibrator		140	240	MC667L	7.89	7.51	MC667P	5.69	5.42
Quad 2-input gate (passive pullup)		125	176/52*	MC668L	4.77	4.54	MC668P	3.37	3.21
Dual 4-input expander		.....	....	MC669L	3.15	3.00	MC669P	2.79	2.65
Triple 3-input gate (passive pullup)		125	132/39*	MC670L	4.77	4.54	MC670P	3.64	3.46
Triple 3-input gate (active pullup)		110	132/39*	MC671L	4.77	4.54	MC671P	3.64	3.46
Quad 2-input gate (active pullup)		110	176/52*	MC672L	4.77	4.54	MC672P	3.37	3.21
Dual 2-input AND-OR-INVERT gate		110	160/50*	MC673L	4.47	4.26	MC673P	3.37	3.21
Dual 2-input AND-OR-INVERT gate		125	160/50*	MC674L	4.47	4.26	MC674P	3.37	3.21
Dual pulse stretcher		150§	180	MC675L	7.89	7.51	MC675P	5.69	5.42
BCD-to-decimal decoder/driver		.....	380	MC676L	9.58	9.12	MC676P	7.38	7.03
Hex inverter with strobe	(active pullup)	110	246/96*	MC677L	4.77	4.54	MC677P	3.67	3.49
	w/o output resistors	125	192/96*	MC678L	4.77	4.54	MC678P	3.67	3.49
Dual lamp driver		0.5#	250/30	MC679L	7.89	7.51	MC679P	5.69	5.42
Hex inverter		110	246/96*	MC680L	5.06	4.82	MC680P	3.64	3.46
Hex inverter with open collector		125	192/96*	MC681L	5.06	4.82	MC681P	3.64	3.46
Quad latch		250	375	MC682L	9.90	9.43	MC682P	7.38	7.03
Quad 2-input exclusive OR		......	380	MC683L	7.60	7.23	MC683P	5.69	5.42
Decade counter		0.5†	480	MC684L	12.22	11.63	MC684P	9.02	8.59
Binary counter		0.5†	480	MC685L	12.22	11.63	MC685P	9.02	8.59
4-bit shift register		0.5†	480	MC686L	12,22	11.63	MC686P	9.02	8.59
Dual J-K flip-flop		2.5†	375	MC688L	9.90	9.43	MC688P	7.38	7.03
Hex inverter (high voltage)		150	173/55*	MC689L	5.06	4.82	MC689P	3.64	3.46
Hex inverter (active pullup)		150	173/55*	MC690L	5.06	4.82	MC690P	3.64	3.46
Hex inverter		300	500	MC691L	4.77	4.54	MC691P	3.67	3.49
Quad 2-input NAND gate		.....	.....	MC693L	9.90	9.43	MC693P	7.38	7.03
Dual Schmitt trigger		400	225	MC696L	9.90	9.43	MC696P	7.41	7.05
Hex inverter		125	246	MC697L	5.06	4.82	MC697P	3.64	3.46
Dual 2-input AND Schmitt trigger		400	450	MC699L	11.36	10.82	....	....	....

Inputs high/input low. †f_{tog}, MHz. §Pins 1, 6; 110 ns, pins 5, 6. #μsec.

SEE OTHER MOTOROLA IC PAGES FOR CASE ILLUSTRATIONS

MECL 10,000™ MC10,000 SERIES

Provides non-saturated switching for very high speed operation. MECL III™ is directly compatible with MECL 10,000 and can be used to extend the speed capability of the MECL 10,000 Series. Temperature −30°C to +85°C (MC10,000/MC10,200); −55°C to +125°C (MC10,500/MC10,600). V_{CC} = 0 V; V_{EE} = −5.2 V; T_A = 25°C. L suffix denotes dual inline ceramic package (Case 620); most units also available in P (648) and/or F (650) package.

Function	Typical		−30°C to +85°C			−55°C to +125°C		
	t_{pd} nsec	P_D mW	Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
				1-9	10-49		1-9	10-49
Quad 2-input NOR w/strobe	.....	.....	MC10100L	$1.10	$1.05	MC10500L	$4.11	$3.91
Quad gate	2.0	100	MC10101L	1.10	1.05	MC10501L	4.11	3.91
Quad 2-input gate	2.0	100	MC10102L	1.10	1.05	MC10502L	4.11	3.91
Quad 2-input OR gate	.....	.....	MC10103L	1.10	1.05	MC10503L	4.11	3.91
Quad AND gate	2.7	140	MC10104L	1.10	1.05	MC10504L	4.11	3.91
Triple 2-3-2-input gate	2.0	75	MC10105L	1.10	1.05	MC10505L	4.11	3.91
Triple 4-3-3-input gate	2.0	75	MC10106L	1.10	1.05	MC10506L	4.11	3.91
Triple 2-input exclusive-OR/exclusive-NOR	2.5	110	MC10107L	1.17	1.12	MC10507L	5.10	4.86
Dual 4-5-input OR-NOR gate	2.0	50	MC10109L	1.10	1.05	MC10509L	4.11	3.91
Dual 3-input 3-output OR gate	2.4	150	MC10110L	1.10	1.05	.....	.....	.....
Dual 3-input 3-output NOR gate	2.4	150	MC10111L	1.10	1.05	.....	.....	.....
Quad exclusive-OR gate	.....	.....	MC10113L	1.17	1.12	MC10513L	5.10	4.86
Triple line receiver	2.4	145	MC10114L	1.17	1.12	MC10514L	5.10	4.86
Quad line receiver	2.0	100	MC10115L	1.10	1.05	MC10515L	4.11	3.91
Triple line receiver	2.0	75	MC10116L	1.10	1.05	MC10516L	4.11	3.91
Dual 2-wide 2-3-input OR-AND/OR-AND-INVERT gate	2.3	100	MC10117L	1.10	1.05	MC10517L	5.10	4.86
Dual 2-wide 3-input OR-AND gate	2.3	100	MC10118L	1.10	1.05	MC10518L	6.57	6.26
4-wide 4-3-3-3-input OR-AND gate	2.3	100	MC10119L	1.17	1.12	MC10519L	5.10	4.86
4-wide OR-AND/OR-AND-INVERT gate	2.3	100	MC10121L	1.17	1.12	MC10521L	5.10	4.86
Triple 4-3-3 bus driver	.....	.....	MC10123L	2.39	2.28	.....	.....	.....
MTTL to MECL translator	5.0	340	MC10124L	3.01	2.86	MC10524L	7.79	7.42
MECL to MTTL translator	5.0	360	MC10125L	3.01	2.86	MC10525L	7.79	7.42
Bus driver	12.0	700	MC10128L	9.49	9.04	.....	.....	.....
Bus receiver	10.0	725	MC10129L	9.49	9.04	.....	.....	.....
Dual latch	2.5	160	MC10130L	3.01	2.86	MC10530L	7.32	6.97
Dual type D master-slave flip-flop	*	225	MC10131L	3.64	3.46	MC10531L	10.00	9.53
Dual multiplexer with latch and common reset	3.0	225	MC10132L	3.51	3.34	.....	.....	.....
Quad latch	4.0	300	MC10133L	3.51	3.34	MC10533L	11.83	11.27
Multiplexer with latch	3.0	225	MC10134L	3.51	3.34	.....	.....	.....
Dual J-K master-slave flip-flop	†	250	MC10135L	3.75	3.58	MC10535L	11.83	11.27
Universal hexadecimal counter	‡	585	MC10136L	15.10	14.38	.....	.....	.....
Universal decade counter	‡	585	MC10137L	15.10	14.38	.....	.....	.....
Bi-quinary counter	.....	.....	MC10138L	9.50	9.05	MC10538L	18.17	17.30
32 × 8 Field PROM	.....	.....	MCM10139L	17.74	16.90	.....	.....	.....
Four-bit universal shift register	§	400	MC10141L	9.75	9.29	MC10541L	29.47	28.07
8 × 2 multiport RAM	.....	.....	MCM10143L•	21.56	20.53	.....	.....	.....
256-bit RAM	.....	.....	MCM10144L	14.22	13.55	.....	.....	.....
64-bit RAM	.....	.....	MCM10145L	11.29	10.75	.....	.....	.....
1024-bit RAM	.....	.....	MCM10146L	22.58	21.51	.....	.....	.....
128-bit RAM	.....	.....	MCM10147L	16.79	15.99	.....	.....	.....
Hex inverter with enable	.....	.....	MC10189L	3.27	3.11	.....	.....	.....
1024-bit PROM	.....	.....	MCM10149L	21.56	20.53	.....	.....	.....
256 × 1 RAM	.....	.....	MCM10152L	19.43	18.50	.....	.....	.....
Quad latch	.....	.....	MC10153L	3.64	3.46	MC10553L	11.75	11.19
Quad 2-input multiplexer	.....	.....	MC10158L	4.77	4.54	MC10558L	11.75	11.19
Quad 2-input multiplexer	.....	.....	MC10159L	4.77	4.54	.....	.....	.....
12-bit parity generator checker	4.0	320	MC10160L	4.77	4.54	MC10560L	11.45	10.91
Binary to 1-of-8 decoder (low)	4.0	315	MC10161L	4.77	4.54	MC10561L	11.75	11.19
Binary to 1-of-8 decoder (high)	4.0	315	MC10162L	4.77	4.54	MC10562L	11.75	11.19
IBM code error detector	.....	.....	MC10163L	9.75	9.29	MC10563L	18.87	17.97
8-line multiplexer	3.0	300	MC10164L	5.38	5.13	MC10564L	11.75	11.19
8-input priority encoder	7.0	580	MC10165L	7.63	7.26	MC10565L	23.67	22.54
5-bit magnitude comparator	.....	.....	MC10166L	7.87	7.50	.....	.....	.....
Quad latch	.....	.....	MC10168L	3.64	3.46	MC10568L	12.66	12.05
9 + 2-bit parity generator	.....	.....	MC10170L	6.01	5.73	MC10570L	11.75	11.19
Binary to 1-of-4 decoder	4.0	340	MC10171L	4.77	4.54	MC10571L	11.75	11.19
Dual binary to 1-4 decoder	.....	.....	MC10172L	4.77	4.54	MC10572L	11.75	11.19
Quad 2-input multiplexer/latch	2.5	260	MC10173L	5.38	5.13	.....	.....	.....
Dual 4-to-1 multiplexer	3.5	325	MC10174L	5.38	5.13	MC10574L	11.75	11.19
Quint latch	2.5	385	MC10175L	4.52	4.30	MC10575L	12.86	12.25
Hex D master-slave flip-flop	.....	.....	MC10176L	6.76	6.44	MC10576L	18.76	17.86
Triple MECL-NMO's translator	.....	.....	MC10177L	7.63	7.26	.....	.....	.....
Binary counter	.....	.....	MC10178L	9.50	9.05	MC10578L	15.79	15.04
Look-ahead carry block	.....	285	MC10179L	6.06	5.77	MC10579L	13.21	12.58
Dual high speed adder/subtractor	4.5	340	MC10180L	11.36	10.82	MC10580L	35.31	33.63
4-bit ALU function generator	.....	575	MC10181L•	18.52	17.64	MC10581L	59.31	56.49
2-bit arithmetic logic unit	.....	.....	MC10182L	22.58	21.51	MC10582L	46.70	44.48
4 × 2 multiplier	.....	.....	MC10183L•	49.68	47.31	.....	.....	.....
Hex D master-slave flip-flop	.....	.....	MC10186L	6.63	6.31	MC10586L	27.47	26.16
64 × 1 bit random access memory	.....	.....	MCM10148L	16.79	15.99	.....	.....	.....
Quad MST to MECL-10,000 gen.	.....	.....	MC10190L	7.01	6.68	MC10590L	13.45	12.81
Hex MECL-10,000 to MST gen.	.....	.....	MC10191L	7.01	6.68	MC10591L	13.45	12.81
Motorola code error detector	.....	.....	MC10193L	10.00	9.53	MC10593L	18.87	17.97
Dual simul. bus transceiver	.....	.....	MC10194L	3.89	3.70	MC10594L	9.06	8.63
Hex inverter/buffer	.....	.....	MC10195L	2.52	2.40	MC10595L	9.06	8.63
Hex AND gate	.....	.....	MC10197L	2.52	2.40	MC10597L	9.06	8.63
One-shot multivibrator	.....	.....	MC10198L	23.83	22.69	.....	.....	.....
Dual 3-input 3-output OR gate	1.5	150	MC10210L	1.83	1.75	MC10610L	6.59	6.27
Dual 3-input 3-output NOR gate	1.5	150	MC10211L	1.83	1.75	MC10611L	6.59	6.27
Or/Nor dual line driver	.....	.....	MC10212L	1.83	1.75	MC10612L	6.59	6.27
Triple line receiver	1.8	100	MC10216L	1.83	1.75	MC10616L	6.59	6.27
Dual type D master-slave flip-flop	▲	285	MC10231L	6.38	6.08	MC10631L	15.43	14.69
2 × 1-bit array mult. block	.....	.....	MC10287L	28.81	27.44	MC10687L	57.08	54.37

*f = 160 MHz. †f = 140 MHz. ‡f = 150 MHz. §f = 200 MHz. #Access time = 10. •In dual inline ceramic package (Case 623); also available in dual inline plastic package (Case 649). ▲f = 225 MHZ.

SEE OTHER MOTOROLA IC PAGES FOR CASE ILLUSTRATIONS

MECL 10KH MC10H SERIES

An improved version of the MECL 10K series featuring 100% improvement in propagation delay and clock speeds while maintaining power supply current equal to MC10K series. Compatible with MECL III and MECL 10K. Temperature Range: 0° to +75°C. L suffix denotes dual inline ceramic package (Case 620); P suffix denotes dual inline plastic package (Case 648).

Function	Typical		Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
	t_{pd} Typ.	P_D mW		1-9	10-49		1-9	10-49
Quad OR/NOR gate	1.0	25	MC10H101L	$2.49	$2.37	MC10H101P	$2.13	$2.03
Quad 2-input OR/NOR gate	1.0	25	MC10H102L	2.49	2.37	MC10H102P	2.13	2.03
Quad 2-input OR gate	.....	.....	MC10H103L	2.49	2.37	MC10H103P	2.13	2.03
Quad 2-input AND gate	1.0	35	MC10H104L	2.49	2.37	MC10H104P	2.13	2.03
Triple 2-3-2 input OR/NOR gate	1.0	25	MC10H105L	2.49	2.37	MC10H105P	2.13	2.03
Triple 2-input OR/NOR gate	1.0	35	MC10H107L	2.49	2.72	MC10H107P	2.42	2.31
Dual 4-5 input OR/NOR gate	1.0	35	MC10H109L	2.49	2.37	MC10H109P	2.13	2.03
Triple line receiver	1.0	85	MC10H116L	2.49	2.37	MC10H116P	2.13	2.03
Dual 2-wide, 2-3 input OR-AND/ OR-AND-inverter gate	1.0	100	MC10H117L	2.49	2.37	MC10H117P	2.13	2.03
Dual 2-wide, 3-input OR-AND gate	1.0	100	MC10H118L	2.49	2.37	MC10H118P	2.13	2.03
4-wide, 4-3-3-3 input OR-AND gate	1.0	100	MC10H119L	2.57	2.44	MC10H119P	2.20	2.10
4-wide OR-AND/OR-AND gate	1.0	100	MC10H121L	2.57	2.44	MC10H121P	2.20	2.10
Dual latch	1.0	155	MC10H130L	6.53	6.22	MC10H130P	5.50	5.24
Dual D master-slave flip-flop	1.0	235	MC10H131L	6.53	6.22	MC10H131P	5.50	5.24
4 bit universal shift register	.....	425	MC10H141L	11.44	10.89	MC10H141P	10.29	9.80
Quad 2-input multiplexer	1.5	197	MC10H158L	8.92	8.49	MC10H158P	7.63	7.26
Quad 2-input multiplexer	1.5	218	MC10H159L	8.92	8.49	MC10H159P	7.63	7.26
12 bit parity generator/checker	2.5	320	MC10H160L	8.92	8.49	MC10H160P	7.63	7.26
Binary to 1-of-8 decoder	1.0	315	MC10H161L	8.92	8.49	MC10H161P	7.63	7.26
Binary to 1-of-8 decoder	1.0	315	MC10H162L	8.92	8.49	MC10H162P	7.63	7.26
8-line multiplexer	1.0	310	MC10H164L	10.19	9.71	MC10H164P	8.92	8.49
Quad 2-input multiplexer/latch	1.5	275	MC10H173L	10.18	9.69	MC10H173P	9.17	8.73
Dual 4-to-1 multiplexer	1.5	305	MC10H174L	10.18	9.69	MC10H174P	9.17	8.73
Quintuple latch	1.2	400	MC10H175L	8.56	8.16	MC10H175P	7.48	7.12
Hex D master-slave flip-flop	1.7	460	MC10H176L	12.39	11.80	MC10H176P	11.22	10.68
Hex D master-slave flip-flop with reset	1.7	460	MC10H186AL	12.39	11.80	MC10H186AP	11.22	10.68

DIGITAL IC's QUALIFIED TO MIL-M-38510

JAN No JM38510/	Motorola Standard Number	Net Each, Lots of	JAN No. JM38510/	Motorola Standard Number	Net Each, Lots of	JAN N9o. JM38510/	Motorola Standard Number	Net Each, Lots of
		1-9			1-9			1-9
00101BAB	MC5430F	$ 6.01	00804BAB	MC5417F	$12.61	01402BEB	MC9312L	$10.12
00101BCB	MC5430L	4.33	00804BCB	MC5417L	9.90	01402BFB	MC9312F	13.64
00102BAB	MC5420F	6.01	00901BAB	MC5495F	16.13	01403BEB	MC54153L	10.31
00102BCB	MC5420L	4.33	00901BCB	MC5495L	11.29	01403BFB	MC54153F	14.44
00103BAB	MC5410F	6.01	00902BEB	MC5496L	10.49	01404BEB	MC9309L	11.73
00103BCB	MC5410L	4.33	00902BFB	MC5496F	14.66	01404BFB	MC9309F	13.12
00104BAB	MC5400F	6.01	00904BEB	MC54165L	12.02	01405BEB	MC9322L	8.80
00104BCB	MC5400L	4.33	00904BFB	MC54165F	16.94	01405BFB	MC9322F	14.30
00105BAB	MC5404F	6.01	00905BEB	MC54194L	11.66	01406BEB	MC54151L	9.68
00105BCB	MC5404L	4.33	00905BFB	MC54194F	16.57	01406BFB	MC54151F	13.64
00107BAB	MC5401F	6.01	00906BEB	MC54195L	11.66	01501BEB	MC5475L	10.49
00107BCB	MC5401L	4.33	00906BFB	MC54195F	16.57	01501BFB	MC5475F	14.66
00108BAB	MC5405F	6.01	01001BEB	MC5442L	11.00	01502BAB	MC5477F	14.66
00108BCB	MC5405L	4.33	01001BFB	MC5442F	14.81	01504BEB	MC9314L	10.49
00109BCB	MC5403L	4.33	01002BEB	MC5443L	11.44	01504BFB	MC9314F	14.66
00202BAB	MC5473F	7.71	01002BFB	MC5443F	16.42	01601BAB	MC5408F	6.32
00202BCB	MC5473L	6.75	01003BEB	MC5444L	11.58	01601BCB	MC5408L	4.40
00203BCB	MC54107L	6.75	01003BFB	MC5444F	16.50	01602BAB	MC5409F	6.32
00206BAB	MC5470F	8.07	01004BEB	MC5445L	14.52	01602BCB	MC5409L	4.40
00206BCB	MC5470L	6.97	01004BFB	MC5445F	20.38	01701BEB	MC54174L	11.95
00207BAB	MC5479F	7.71	01005BEB	MC54145L	11.78	01701BFB	MC54174F	16.79
00207BCB	MC5479L	6.75	01005BFB	MC54145F	20.38	01702BEB	MC54175L	11.95
00301BAB	MC5440F	6.01	01008BEB	MC5448L	12.32	01702BFB	MC54175F	16.79
00301BCB	MC5440L	4.33	01008BFB	MC5448F	17.45	01901BAB	MC54180F	15.98
00302BAB	MC5437F	6.31	01009BAB	MC5449F	17.16	01901BCB	MC54180L	11.14
00302BCB	MC5437L	4.47	01009BCB	MC5449L	12.17	02201BAB	MC54H72F	7.96
00303BAB	MC5438F	6.31	01101BJB	MC5418L	19.80	02201BCB	MC54H72L	6.50
00303BCB	MC5438L	4.47	01101BKB	MC54181F	28.52	02202BAB	MC54H73F	7.96
00401BAB	MC5402F	6.01	01102BEB	MC54182L	27.79	02202BCB	MC54H73L	6.50
00401BCB	MC5402L	4.33	01102BFB	MC54182F	38.86	02205BAB	MC54H101F	7.96
00402BEB	MC5423L	4.47	01201BAB	MC54121F	8.36	02205BCB	MC54H101L	6.50
00402BFB	MC5423F	6.31	01201BCB	MC54121L	6.38	02206BAB	MC54H103F	8.07
00403BAB	MC5425L	6.01	01202BAB	MC54122F	14.15	02206BCB	MC54H103L	6.97
00403BCB	MC5425L	4.47	01202BCB	MC54122L	11.00	02301BAB	MC54H30F	6.53
00404BAB	MC5427F	6.01	01203BEB	MC54123L	11.44	02301BCB	MC54H30L	4.62
00404BCB	MC5427L	4.33	01023BFB	MC54123F	16.42	02302BAB	MC54H20F	6.53
00501BAB	MC5450F	6.01	01204BAB	MC9601F	12.32	02302BCB	MC54H20L	4.62
00501BCB	MC5450L	4.33	01204BCB	MC9601L	9.39	02303BAB	MC54H10F	6.53
00502BAB	MC5451F	6.01	01205BEB	MC9602L	11.44	02303BCB	MC54H10L	4.62
00502BCB	MC5451L	4.33	01205BFB	MC9602F	16.42	02304BAB	MC54H00F	6.53
00503BAB	MC5453F	6.01	01301BAB	MC5492F	14.81	02304BCB	MC54H00L	4.62
00503BCB	MC5453L	4.33	01301BCB	MC5492L	11.00	02305BAB	MC54H04F	6.53
00504BAB	MC5454F	6.01	01302BAB	MC5493F	14.81	02305BCB	MC54H04L	4.62
00504BCB	MC5454L	4.33	01302BCB	MC5493L	11.00	02306BAB	MC54H01F	6.53
00601BAB	MC15482F	12.02	01303BEB	MC54160L	12.32	02306BCB	MC54H01L	4.62
00601BCB	MC15482L	8.36	01303BFB	MC54160F	17.45	02307BAB	MC54H22F	6.53
00602BEB	MC5483F	11.44	01304BEB	MC54163L	12.32	02307BCB	MC54H22L	4.62
00602BFB	MC5483F	15.54	01304BFB	MC54163F	17.45	02401BAB	MC54H40F	6.53
00603BEB	MC9304L	10.27	01305BEB	MC54162L	12.32	02401BCB	MC54H40L	4.62
00603BFB	MC9304F	14.52	01305BFB	MC54162F	17.45	04001BAB	MC54H50F	6.53
00604BAB	MC5480F	9.24	01306BEB	MC54161L	12.32	04001BCB	MC54H50L	4.62
00604BCB	MC5480L	7.04	01036BFB	MC54161F	17.45	04002BAB	MC54H51F	6.53
00701BAB	MC5486F	7.19	01307BAB	MC5490F	10.12	04002BCB	MC54H51L	4.62
00701BCB	MC5486L	6.13	01307BCB	MC5490L	11.00	04003BAB	MC54H53F	6.53
00801BAB	MC5406F	16.35	01308BEB	MC54192L	12.32	04003BCB	MC54H53L	4.62
00801BCB	MC5406L	11.44	01308BFB	MC54192F	17.45	04004BAB	MC54H54F	6.53
00802BAB	MC5416F	12.39	01309BEB	MC54193L	12.32	04004BCB	MC54H54L	4.62
00802BCB	MC5416L	9.17	01309BFB	MC54193F	17.45	04005BAB	MC54H55F	6.53
00803BAB	MC5407F	16.57	01401BJB	MC54150AL	19.80	04005BCB	MC54H55L	4.62
00803BCB	MC5407L	11.44	01401BKB	MC54150AF	28.52			

MTTL™ COMPLEX FUNCTIONS
SERIES MC4000 AND MC4300

Designed for digital applications in the medium-to high-speed range. Provide significant reduction in package count and increased logic per function over devices in the basic MTTL and MDTL™ families. V_{CC} = 5.0 V; T_A = 25 C. **F** suffix denotes flat ceramic package (Case 607, 650, 667). **L** suffix denotes dual inline ceramic package (Case 632, 620, 623) and **P** suffix denotes dual inline plastic package (Case 646, 648, 649).

Function	Typical		Case 646 (0 C to + 75 C)			Case 607 (55 C to + 125 C)		
			Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
	t_{pd} ns	P_D mW		1-9	10-49		1-9	10-49
Dual 4-channel data selector	18*	150	**MC4000P**	**$ 8.55**	**$ 8.14**	**MC4300F**	**$16.80**	**$16.00**
BCD-to-binary/binary-to-BCD	45	300	**MC4001P●**	**16.58**	**15.79**	....	....	....
Dual data distributor	10.5	175	**MC4002P**	**8.33**	**7.93**	**MC4302F**	**16.80**	**16.00**
16-bit scratch pad memory cell	25†	250	**MC4004P**	**5.38**	**5.13**	**MC4304F**	**11.42**	**10.88**
16-bit scratch pad memory cell	25†	250	**MC4005P**	**5.32**	**5.07**	**MC4305F**	**11.29**	**10.75**
Binary to one-of-eight line decoder	14	100	**MC4006P**	**10.03**	**9.55**	**MC4306F**	**18.45**	**17.57**
Dual binary to one-of-four line decoder	14	125	**MC4007P●**	**10.03**	**9.55**	**MC4307F■**	**18.45**	**17.57**
8-bit parity tree	15-30	150	**MC4008P**	**7.10**	**6.76**	**MC4308F**	**14.00**	**13.34**
Dual 4-bit parity tree	9.5-22	125	**MC4010P**	**9.62**	**9.16**	**MC4310F**	**18.42**	**17.54**
4-bit shift register	22/bit	180	**MC4012P**	**12.07**	**11.49**	**MC4312F**	**21.80**	**20.77**
Quad type D flip-flop	16	190	**MC4015P●**	**9.71**	**9.25**	**MC4315F■**	**18.39**	**17.51**
Programmable Modulo-N decade counter	50‡	250	**MC4016P●**	**11.58**	**11.03**	**MC4316F■**	**22.85**	**21.76**
MC4016 except hexadecimal counter	50‡	250	**MC4017P●**	**11.58**	**11.03**	**MC4317F■**	**22.85**	**21.76**
Prog. Modulo-N hexadecimal counter	50‡	250	**MC4018P●**	**11.58**	**11.03**	**MC4318F■**	**22.85**	**21.76**
Dual prog. Modulo 4 counters	50‡	250	**MC4019P●**	**11.58**	**11.03**	**MC4319F■**	**22.80**	**21.72**
Dual 4-bit comparator—open collector	20	250	**MC4021P●**	**9.03**	**8.60**	**MC4321F■**	**17.48**	**16.65**
Dual 4-bit comparator	20	250	**MC4022P●**	**9.03**	**8.60**	**MC4322F■**	**17.48**	**16.65**
4-bit universal counter	16/bit	200	**MC4023P**	**13.10**	**12.47**	**MC4323F**	**23.33**	**22.22**
Dual voltage controlled multivibrator	§	150	**MC4024P**	**6.59**	**6.27**	**MC4324F**	**11.13**	**10.60**
Full adder (12 fan out)	25/13#	90	**MC4026P**	**4.39**	**4.18**	**MC4326F**	**8.93**	**8.51**
Adder (dependent carry) 12 fan out	25/13#	125	**MC4028P**	**4.16**	**3.97**	**MC4328F**	**8.65**	**8.24**
Adder (independent carry) 12 fan out	25/13#	125	**MC4030P**	**4.16**	**3.97**	**MC4330F**	**8.65**	**8.24**
Carry decoder	●	20	**MC4032P**	**4.16**	**3.97**	**MC4332F**	**8.65**	**8.24**
Quad latch (open collector)	25	140	**MC4035P**	**4.33**	**4.12**	**MC4335F**	**8.87**	**8.45**
Quad latch	25	150	**MC4037P**	**4.33**	**4.12**	**MC4337F**	**8.87**	**8.45**
Inverting/non-inverting one-of-eight decoder	45	240	**MC4038P●**	**16.58**	**15.79**	....	....	....
7 segment character generator	45	240	**MC4039P●**	**16.75**	**15.95**	....	....	....
Binary to two-of-eight decoder	45	200	**MC4040P●**	**16.58**	**15.79**	....	....	....
Quad predriver	15	120	**MC4042P**	**7.48**	**7.12**	**MC4342F**	**15.35**	**14.62**
Phase frequency detector	9.0	85	**MC4044P**	**6.59**	**6.27**	**MC4344F**	**11.19**	**10.66**
Non-inverting one-of-eight decoder	50	240	**MC4048P●**	**16.58**	**15.79**	....	....	....
Counter-latch decoder	40 MHz‡	450	**MC4050P●**	**20.62**	**19.64**	**MC4350F■**	**35.16**	**33.49**
NBCD adder	30	300	**MC4056P●**	**16.97**	**16.16**	**MC4356F■**	**21.83**	**20.79**
Bus transfer switch	25	350	**MC4060P●**	**8.90**	**8.48**	**MC4360F■**	**17.64**	**16.80**

*Control line; data line = 11 ns. †Write mode; sense mode = 15 ns. ‡Clock to Q3; clock to bus = 35 ns. §fmax = 30 MHz. #Add delay/carry delay. ● t_{pd} = 4.0/decoder. ■Case 650. ●Case 648.

Additional package types that are available.

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC4000F◆	**$14.90**	**$14.19**
MC4000L	**12.26**	**11.68**
MC4300L	**13.77**	**13.11**
MC4001L●	**17.55**	**16.72**
MC4301L◆	**22.71**	**21.63**
MC4002F◆	**14.90**	**14.19**
MC4002L	**12.26**	**11.68**
MC4302L	**13.77**	**13.11**
MC4004L	**5.94**	**5.66**
MC4304L	**6.75**	**6.42**
MC4005L#	**5.81**	**5.53**
MC4305L#	**6.61**	**6.30**
MC4006L	**14.00**	**13.34**
MC4306L	**15.19**	**14.47**
MC4007L▲	**14.25**	**13.57**
MC4307L▲	**15.46**	**14.72**
MC4008L	**10.35**	**9.86**
MC4308L	**11.48**	**10.94**
MC4010L	**13.65**	**13.00**
MC4310L	**15.16**	**14.44**
MC4012L	**16.03**	**15.26**

▲Case 620. ◆Case 607. ●Case 650. #Case 632.

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC4312L	**$17.93**	**$17.08**
MC4015L▲	**13.90**	**13.24**
MC4315L▲	**15.26**	**14.54**
MC4016L▲	**16.97**	**16.16**
MC4316L▲	**19.22**	**18.31**
MC4017L▲	**16.97**	**16.16**
MC4317L▲	**19.22**	**18.31**
MC4018L▲	**16.97**	**16.16**
MC4318L▲	**19.22**	**18.31**
MC4019L▲	**16.97**	**16.16**
MC4319L▲	**19.22**	**18.31**
MC4021L▲	**12.77**	**12.16**
MC4321L▲	**14.55**	**13.85**
MC4022L▲	**12.77**	**12.16**
MC4322L▲	**14.55**	**13.85**
MC4023L	**16.88**	**16.07**
MC4323L	**19.14**	**18.23**
MC4024L	**8.09**	**7.71**
MC4324L	**9.22**	**8.78**
MC4026L	**5.00**	**4.76**

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC4326L	**$ 5.54**	**$ 5.28**
MC4028L	**4.71**	**4.48**
MC4328L	**5.22**	**4.97**
MC4030L	**4.71**	**4.48**
MC4330L	**5.22**	**4.97**
MC4032L	**4.71**	**4.48**
MC4332L	**5.22**	**4.97**
MC4035L	**4.94**	**4.71**
MC4335L	**5.48**	**5.22**
MC4037L	**4.94**	**4.71**
MC4337L	**5.48**	**5.22**
MC4042L	**12.10**	**11.52**
MC4342L	**12.61**	**12.01**
MC4044L	**8.09**	**7.71**
MC4344L	**9.22**	**8.78**
MC4050L	**25.54**	**24.33**
MC4350L	**28.98**	**27.60**
MC4056L▲	**22.91**	**21.81**
MC4356L▲	**18.10**	**17.23**
MC4060L▲	**12.77**	**12.16**
MC4360L▲	**14.68**	**13.98**

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MOTOROLA
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DIGITAL INTEGRATED CIRCUITS

MDTL™ MC930 AND MC830 SERIES

MC930 Series −55°C to +125°C; MC830 Series 0°C to +75°C. V_{CC} = 5.0 VDC, T_A = 25°C.

Function	Typical		Fan Out	Case 632 (−55°C to +125°C)			Case 632 (0° to +75°C)		
	t_{pd} nsec	P_D mW		Motorola Type	Net Each, Lots of		Motorola Type	Net Each, Lots of	
					1-9	10-49		1-9	10-49
Expandable dual 4-input NAND gate	30	22	8	MC930L	$ 4.03	$ 3.84	MC830L	$ 2.27	$ 2.17
Expandable dual 4-input buffer	35	85	25	MC932L	4.03	3.84	MC832L	2.27	2.17
Dual 4-input expander	....	....	....	MC933L	4.03	3.84	MC833L	2.27	2.17
Hex inverter	30	66	8	MC934L	4.43	4.22	MC834L	2.46	2.35
Hex inverter (w/o output resistors)	30	42	8	MC935L	4.43	4.22	MC835L	2.46	2.35
Hex inverter	30	66	8	MC936L	4.43	4.22	MC836L	2.46	2.35
Hex inverter	25	90	7	MC937L	4.43	4.22	MC837L	2.46	2.35
Decade counter	#	150	8	MC938L	10.69	10.18	MC838L	5.88	5.60
Divide-by-sixteen counter	#	150	8	MC939L	10.69	10.18	MC839L	5.88	5.60
Hex inverter (w/o input diodes)	30	66	8	MC940L	4.43	4.22	MC840L	2.46	2.35
Hex inverter w/o output resistors	30	42	8	MC941L	4.43	4.22	MC841L	2.46	2.35
Expandable dual 4-input power gate	30	65	27	MC944L	4.28	4.08	MC844L	2.39	2.28
Clocked flip-flop	40	60	12/10*	MC945L	5.62	5.35	MC845L	3.17	3.02
Quad 2-input NAND gate	30	44	8	MC946L	4.03	3.84	MC846L	2.27	2.17
Clocked flip-flop	40	70	11/9*	MC948L	5.62	5.35	MC848L	3.17	3.02
Quad 2-input NAND gate	25	66	7●	MC949L	4.03	3.84	MC849L	2.27	2.17
Pulsed triggered binary	15	50	10/8*	MC950L	10.29	9.80	MC850L	5.69	5.42
Monostable multivibrator	40	30	10	MC951L	10.29	9.80	MC851L	5.69	5.42
Dual Common clock, C_D; separate S_D	40	120	12/10*	MC952L	6.50	6.19	MC852L	3.56	3.39
J-K Separate clock and S_D; no C_D	40	120	12/10*	MC953L	6.50	6.19	MC853L	3.56	3.39
flip- Common clock, C_D; separate S_D†	40	140	11/9*	MC955L	6.50	6.19	MC855L	3.56	3.39
flop Separate clock and S_D, no C_D†	40	140	11/9*	MC956L	6.50	6.19	MC856L	3.56	3.39
Quad 2-input buffer	35	170	25	MC957L	4.43	4.22	MC857L	2.46	2.35
Quad 2-input NAND power gate	30	130	27	MC958L	4.43	4.22	MC858L	2.46	2.35
Expandable dual 4-input NAND gate	25	33	7●	MC961L	4.03	3.84	MC861L	2.27	2.17
Triple 3-input NAND gate	30	33	8	MC962L	4.03	3.84	MC862L	2.27	2.17
Triple 3-input NAND gate	25	50	7●	MC963L	4.03	3.84	MC863L	2.27	2.17
Dual 6-input NAND gate	30	22	8	MC1900L	4.03	3.84	MC1800L	2.27	2.17
Dual 5-input NAND gate (2K pull-up res.)	25	33	7	MC1901L	4.03	3.84	MC1801L	2.27	2.17
Expandable 8-input NAND gate	30	11	8	MC1902L	4.03	3.84	MC1802L	2.42	2.31
Exp. 8-input NAND gate (2K pull-up res.)	25	16.5	7	MC1903L	4.03	3.84	MC1803L	2.27	2.17
10-input NAND gate	30	11	8	MC1904L	4.03	3.84	MC1804L	2.27	2.17
10-input NAND gate (2K pull-up res.)	25	16.5	7	MC1905L	4.03	3.84	MC1805L	2.27	2.17
Quad 2-input AND gate	35	72	8	MC1906L	4.03	3.84	MC1806L	2.27	2.17
Quad 2-input AND gate (2K pull-up res.)	30	85	7	MC1907L	4.03	3.84	MC1807L	2.27	2.17
Quad 2-input OR gate	35	97	8	MC1908L	4.03	3.84	MC1808L	2.42	2.31
Quad 2-input OR gate (2K pull-up res.)	30	115	7	MC1909L	4.03	3.84	MC1809L	2.27	2.17
Quad 2-input NOR gate	30	60	8	MC1910L	4.03	3.84	MC1810L	2.27	2.17
Quad 2-input NOR gate (2K pull-up res.)	25	72	7	MC1911L	4.03	3.84	MC1811L	2.42	2.31
Quad 2-input-exclusive OR gate	40	120	8	MC1912L	4.03	3.84	MC1812L	2.27	2.17
Quad latch	35	220	7	MC1914L	10.29	9.80	MC1814L	5.84	5.56
Quad 2-input NAND gate OC	30	32	8	MC1918L	4.03	3.84	MC1818L	2.20	2.10
High voltage hex inverter	40	42	7	MC1920L	5.94	5.66	MC1820L	3.28	3.13

#Counting frequency = 30 MHz (typical). *Fan out for MC830/MC930 Series. ●2K pull-up resistor.

Additional package types that are available.

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC830P	$1.36	$1.30
MC832P	1.36	1.30
MC833P	1.36	1.30
MC834P	1.50	1.43
MC835P	1.50	1.43
MC836P	1.50	1.43
MC837P	1.50	1.43
MC838P	3.56	3.39
MC839P	3.56	3.39
MC840P	1.50	1.43
MC841P	1.50	1.43
MC844P	1.42	1.36
MC845P	1.88	1.79
MC846P	1.36	1.30
MC848P	1.88	1.79

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC849P	$1.36	$1.30
MC850P	3.36	3.20
MC851P	3.36	3.20
MC852P	2.14	2.04
MC853P	2.14	2.04
MC855P	2.14	2.04
MC856P	2.14	2.04
MC857P	1.50	1.43
MC858P	1.50	1.43
MC861P	1.36	1.30
MC862P	1.36	1.30
MC863P	1.36	1.30
MC1800P	1.36	1.30
MC1801P	1.36	1.30

Motorola Type	Net Each, Lots of	
	1-9	10-49
MC1802P	$1.36	$1.30
MC1803P	1.36	1.30
MC1804P	1.36	1.30
MC1805P	1.36	1.30
MC1806P	1.36	1.30
MC1807P	1.36	1.30
MC1808P	1.36	1.30
MC1809P	1.36	1.30
MC1810P	1.36	1.30
MC1811P	1.36	1.30
MC1812P	1.36	1.30
MC1814P	3.43	3.27
MC1818P	1.29	1.23
MC1820P	2.01	1.91

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DIGITAL INTEGRATED CIRCUITS

MTTL™ SN54LS AND SN74LS SERIES

The LS Low Power Schottky TTL family combines a current and power reduction by a factor of 5 (compared to Series 7400 TTL with anti-saturation Schottky diode clamping and advanced processing, using shallower diffusions and higher sheet resistivity, to achieve circuit performance better than conventional TTL.

Function	Motorola Number SN54LS-	Net Each, Lots of		Motorola Number SN74LS-	Net Each, Lots of		Motorola Number SN74LS-	Net Each, Lots of	
		1-9	10-49		1-9	10-49		1-9	10-49
Quad 2-input NAND gate	00J	$1.17	$1.12	00J	$0.85	$0.81	00N	$0.59	$0.56
Quad 2-input NAND gate w/OC	01J	1.17	1.12	01J	.85	.81	01N	.59	.56
Quad 2-input NOR gate	02J	1.17	1.12	02J	.85	.81	02N	.59	.56
Quad 2-input NOR gate w/OC	03J	1.17	1.12	03J	.85	.81	03N	.59	.56
Hex inverter	04J	1.19	1.13	04J	.88	.84	04N	.62	.59
Hex inverter w/OC	05J	1.19	1.13	05J	.88	.84	05N	.62	.59
Quad 2-input AND gate	08J	1.17	1.12	08J	.85	.81	08N	.59	.56
Quad 2-input AND gate w/OC	09J	1.17	1.12	09J	.85	.81	09N	.59	.56
Triple 3-input NAND gate	10J	1.19	1.13	10J	.88	.84	10N	.62	.59
Triple 3-input AND gate	11J	1.19	1.13	11J	.88	.84	11N	.62	.59
Triple 3-input NAND gate w/OC	12J	1.19	1.13	12J	.88	.84	12N	.62	.59
Dual 4-input Schmitt trigger	13J	1.48	1.41	13J	1.09	1.03	13N	.78	.74
Hex Schmitt trigger	14J	1.77	1.69	14J	1.31	1.24	14N	.98	.94
Triple 3-input AND gate w/OC	15J	1.19	1.13	15J	.88	.84	15N	.62	.59
Dual 4-input NAND gate	20J	1.17	1.12	20J	.85	.81	20N	.59	.56
Dual 4-input AND gate	21J	1.17	1.12	21J	.85	.81	21N	.59	.56
Dual 4-input NAND gate w/OC	22J	1.17	1.12	22J	.85	.81	22N	.59	.56
Quad 2-input NAND gate, high voltage	26J	1.19	1.13	26J	.88	.84	26N	.62	.59
Triple 3-input NOR gate	27J	1.19	1.13	27J	.88	.84	27N	.62	.59
Quad 2-input NOR buffer	28J	1.19	1.13	28J	.88	.84	28N	.62	.59
8-input NAND gate	30J	1.17	1.12	30J	.85	.81	30N	.59	.56
Quad 2-input OR gate	32J	1.17	1.12	32J	.85	.81	32N	.59	.56
Quad 2-input NOR gate w/OC	33J	1.19	1.13	33J	.88	.84	33N	.62	.59
Quad 2-input NAND buffer	37J	1.19	1.13	37J	.88	.84	37N	.62	.59
Quad 2-input NAND buffer w/OC	38J	1.19	1.13	38J	.88	.84	38N	.62	.59
Dual 4-input NAND buffer	40J	1.19	1.13	40J	.88	.84	40N	.62	.59
1-of-10 decoder	42J	2.23	2.12	42J	1.64	1.57	42N	1.22	1.16
BCD-to-7 segment decoder/driver w/OC	.....	.....	.....	47J	1.94	1.84	47N	1.60	1.52
BCD-to-7 segment decoder/driver	.....	.....	.....	48J	1.80	1.72	48N	1.47	1.40
BCD-to-7 segment decoder/driver w/OC	.....	.....	.....	49J	1.80	1.72	49N	1.47	1.40
Dual AND-OR-INVERT gate	51J	1.17	1.12	51J	.85	.81	51N	.59	.56
2-3-3-2-input AND-OR-INVERT gate	54J	1.17	1.12	54J	.85	.81	54N	.59	.56
2-wide, 4-input AND-OR-INVERT gate	55J	1.17	1.12	55J	.85	.81	55N	.59	.56
Dual J-K flip-flop	73AJ	1.61	1.54	73AJ	1.19	1.13	73AN	.88	.84
Dual D type flip-flop	74AJ	1.58	1.51	74AJ	1.17	1.12	74AN	.85	.81
4-bit bistable latch	75J	1.98	1.89	75J	1.45	1.38	75N	1.04	.99
Dual J-K flip-flop	76AJ	1.67	1.59	76AJ	1.22	1.16	76AN	.91	.87
4-bit bistable latch	77J	1.98	1.89	77J	1.45	1.38	77N	1.04	.99
Dual J-K flip-flop w/preset	78AJ	1.70	1.62	78AJ	1.25	1.19	78AN	.92	.88
4-bit full adder	83AJ	2.33	2.22	83AJ	1.72	1.63	83AN	1.31	1.24
4-bit magnitude comparator	85J	2.43	2.32	85J	1.80	1.72	85N	1.38	1.31
Quad Exclusive-OR gate	86J	1.44	1.37	86J	1.06	1.01	86N	.78	.74
Decade counter	90J	1.80	1.72	90J	1.32	1.26	90N	.98	.94
8-bit shift register	.....	.....	.....	91J	2.02	1.93	91N	1.57	1.49
Divide-by-12 counter	92J	1.80	1.72	92J	1.32	1.26	92N	.98	.94
4-bit binary counter	93J	1.80	1.72	93J	1.32	1.26	93N	.98	.94
4-bit shift register	95BJ	2.51	2.39	95BJ	1.85	1.76	95BN	1.44	1.37
Dual J-K flip-flop w/enable	107AJ	1.61	1.54	107AJ	1.19	1.13	107AN	.91	.87
Dual J-K edge-triggered flip-flop	109AJ	1.57	1.49	109AJ	1.14	1.09	109AN	.85	.81
Dual J-K edge-triggered flip-flop	112AJ	1.61	1.54	112AJ	1.19	1.13	112AN	.91	.87
Dual J-K edge-triggered flip-flop	113AJ	1.61	1.54	113AJ	1.19	1.13	113AN	.91	.87
Dual J-K edge-triggered flip-flop	114AJ	1.61	1.54	114AJ	1.19	1.13	114AN	.91	.87
Dual retriggerable monostable multivibrator	122J	2.11	2.01	122J	1.57	1.49	122N	1.14	1.09
Dual retriggerable monostable multivibrator	123J	2.83	2.70	123J	2.10	2.00	123N	1.41	1.34
Quad 3-state buffer, low enable	125AJ	2.04	1.94	125AJ	1.51	1.44	125AN	1.09	1.03
Quad 3-state buffer, high enable	126AJ	2.04	1.94	126AJ	1.51	1.44	126AN	1.09	1.03
Quad 2-input Schmitt trigger	132J	1.88	1.79	132J	1.38	1.31	132N	1.04	.99
13-input NAND gate	133J	1.44	1.37	133J	1.06	1.01	133N	.78	.74
Quad Exclusive-OR gate w/OC	136J	1.44	1.37	136J	1.06	1.01	136N	.78	.74
3-line to 8-line decoder/demultiplexer	.....	.....	.....	137J	1.77	1.69	137N	1.57	1.49
1-of-8 decoder/demultiplexer	138J	2.11	2.01	138J	1.57	1.49	138N	1.12	1.06
Dual 1-of-4 decoder/demultiplexer	139J	2.11	2.01	139J	1.57	1.49	139N	1.12	1.06
1-of-10 decoder/driver w/OC	.....	.....	.....	145J	2.45	2.33	145N	1.99	1.90
8-input to 3-line priority encoder	.....	.....	.....	147J	2.98	2.84	147N	2.52	2.40
8-input to 3-line priority encoder	.....	.....	.....	148AJ	2.98	2.84	148AN	2.52	2.40
8-input multiplexer	151J	1.72	1.63	151J	1.28	1.22	151N	.95	.91
Dual 4-input multiplexer	153J	1.72	1.63	153J	1.28	1.22	153N	.95	.91
Dual 1-of-4 decoder	155J	2.20	2.10	155J	1.61	1.54	155N	1.22	1.16
Dual 1-of-4 decoder w/OC	156J	2.20	2.10	156J	1.61	1.54	156N	1.22	1.16
Quad 2-input multiplexer (non-inv.)	157J	1.72	1.63	157J	1.28	1.22	157N	.95	.91
Quad 2-input multiplexer (inv.)	158J	1.72	1.63	158J	1.28	1.22	158N	.95	.91
BCD decade counter, asynch. reset	160AJ	2.23	2.12	160AJ	1.64	1.57	160AN	1.31	1.24
4-bit binary counter, asynch. reset	161AJ	2.20	2.10	161AJ	1.61	1.54	161AN	1.28	1.22
BCD decade counter, synch. reset	162AJ	2.23	2.12	162AJ	1.64	1.57	162AN	1.31	1.24
4-bit binary counter, synch. reset	163AJ	2.23	2.12	163AJ	1.64	1.57	163AN	1.31	1.24
8-bit serial in/parallel out shift register	164J	2.20	2.10	164J	1.61	1.54	164N	1.28	1.22
8-bit parallel in/serial out shift register	165J	2.99	2.85	165J	2.20	2.10	165N	1.77	1.69
8-bit parallel in/serial out shift register	166J	4.08	3.88	166J	3.02	2.88	166N	2.60	2.47
Up/down decade counter	168J	4.84	4.61	168J	3.56	3.39	168N	3.17	3.02

LISTING CONTINUED ON FOLLOWING PAGE

MTTL™ SN54LS AND SN74LS SERIES (CONT'D)

Function	Motorola Number SN54LS-	Net Each, Lots of		Motorola Number SN74LS-	Net Each, Lots of		Motorola Number SN74LS-	Net Each, Lots of	
		1-9	10-49		1-9	10-49		1-9	10-49
Up/down decade counter	169J	$4.84	$4.61	169J	$3.56	$3.39	169N	$3.17	$3.02
4×4 register file w/OC	170J	4.44	4.23	170J	3.28	3.13	170N	2.86	2.72
4-bit D register, 3-state	173AJ	2.20	2.10	173AJ	1.61	1.54	173AN	1.28	1.22
Hex D flip-flop w/clear	174J	1.91	1.82	174J	1.41	1.34	174N	1.09	1.03
Quad D flip-flop w/clear	175J	1.91	1.82	175J	1.41	1.34	175N	1.09	1.03
4-bit arithmetic logic unit	181J	8.70	8.28	181J	5.79	5.52	181N	3.92	3.73
Carry lookahead generator	182J	3.43	3.27	182J	2.54	2.42	182N	2.11	2.01
Dual carry-save full adder	.....	.....	.....	183J	4.62	4.40	183N	4.22	4.02
Up/down binary counter	190J	2.51	2.39	190J	1.85	1.76	190N	1.44	1.37
Up/down binary counter	191J	2.51	2.39	191J	1.85	1.76	191N	1.44	1.37
Up/down decade counter	192J	2.51	2.39	192J	1.85	1.76	192N	1.44	1.47
Up/down binary counter	193J	2.64	2.51	193J	1.97	1.87	193N	1.54	1.47
4-bit shift register	194AJ	2.51	2.39	194AJ	1.85	1.76	194AN	1.44	1.37
4-bit shift register	195AJ	2.51	2.39	195AJ	1.85	1.76	195AN	1.44	1.37
Decade counter	196J	2.76	2.63	196J	2.04	1.94	196N	1.70	1.62
4-bit binary counter	197J	2.64	2.51	197J	1.97	1.87	197N	1.54	1.47
Dual one-shot multivibrator	221J	2.80	2.67	221J	2.07	1.97	221N	1.64	1.57
Octal inv. bus/line driver	240J	5.07	4.83	240J	3.75	3.58	240N	2.30	2.19
Octal bus/line driver, 3-state	241J	5.07	4.83	241J	3.75	3.58	241N	2.30	2.19
Quad bus transceiver, inverting	242J	3.70	3.52	242J	2.73	2.60	242N	2.30	2.19
Quad bus transceiver, non-inverting	243J	3.70	3.52	243J	2.73	2.60	243N	2.30	2.19
Octal 3-state driver, non-inverting	244J	5.07	4.83	244J	3.75	3.58	244N	2.30	2.19
Octal bus transceiver, non-inverting	245J	5.97	5.68	245J	4.41	4.20	245N	2.96	2.82
BCD-to-7 segment decoder/driver w/OC	.....	.....	.....	247J	1.92	1.83	247N	1.60	1.52
BCD-to-7 segment decoder/driver	.....	.....	.....	248J	1.92	1.83	248N	1.60	1.52
BCD-to-7 segment decoder/driver w/OC	.....	.....	.....	249J	1.92	1.83	249N	1.60	1.52
8-input multiplexer, 3-state	251J	1.77	1.69	251J	1.31	1.24	251N	.98	.94
Dual 4-input multiplexer, 3-state	253J	1.77	1.69	253J	1.31	1.24	253N	.98	.94
Dual 4-input add latch	256J	3.43	3.27	256J	2.54	2.42	256N	2.11	2.01
Quad 2-input multiplexer, 3-state	257AJ	1.77	1.69	257AJ	1.31	1.24	257AN	.98	.94
Quad 2-input multiplexer, 3-state	258AJ	1.77	1.69	258AJ	1.31	1.24	258AN	.98	.94
8-bit addressable latch	259J	3.02	2.88	259J	2.23	2.12	259N	1.80	1.72
Dual 5-input NOR gate, 3-state	260J	1.44	1.37	260J	1.06	1.01	260N	.78	.74
Quad Exclusive-NOR gate w/OC	266J	1.44	1.37	266J	1.06	1.01	266N	.78	.74
Octal flip-flop w/MR	273J	5.07	4.83	273J	3.75	3.58	273N	2.30	2.19
Quad set-reset latch	279J	1.77	1.69	279J	1.31	1.24	279N	.92	.88
9-bit odd/even parity gen/checker	.....	.....	.....	280J	3.70	3.52	280N	3.31	3.16
4-bit full adder	283J	2.33	2.22	283J	1.72	1.63	283N	1.31	1.24
Decade counter	290J	2.38	2.26	290J	1.75	1.66	290N	1.32	1.26
4-bit binary countary	293J	2.43	2.32	293J	1.80	1.72	293N	1.38	1.31
4-bit shift register, 3-state	295AJ	2.70	2.57	295AJ	1.98	1.89	295AN	1.61	1.54
Quad 2-input multiplexer with output latches	298J	2.33	2.22	298J	1.72	1.63	298N	1.31	1.24
8-bit shift/storage register, 3-state	.....	.....	.....	299J	4.90	4.66	299N	3.84	3.66
8-bit shift register w/sign extend	.....	.....	.....	322AJ	8.08	7.69	322AN	7.03	6.69
8-bit univ. shift/storage reg., 3-state	.....	.....	.....	323J	8.08	7.69	323N	7.03	6.69
8-in to 3-line priority encoder, 3-state	.....	.....	.....	348J	2.99	2.85	348N	2.58	2.46
Dual 4-input multiplexer	.....	.....	.....	352J	2.07	1.97	352N	1.70	1.62
Dual 4-input multiplexer, 3-state	.....	.....	.....	353J	2.07	1.97	353N	1.70	1.62
Hex buffer, 3-state, common enable	365AJ	2.01	1.91	365AJ	1.48	1.41	365AN	1.09	1.03
Hex inverter, 3-state, common enable	366AJ	2.01	1.91	366AJ	1.48	1.41	366AN	1.09	1.03
Hex buffer, 4- and 2-bit, 3-state	367AJ	2.01	1.91	367AJ	1.48	1.41	367AN	1.09	1.03
Hex inverter, 4- and 2-bit, 3-state	368AJ	2.01	1.91	368AJ	1.48	1.41	368AN	1.09	1.03
Octal transparent latch	373J	5.15	4.90	373J	3.81	3.63	373N	2.49	2.37
Octal D flip-flop, 3-state	374J	5.15	4.90	374J	3.81	3.63	374N	2.49	2.37
Quad latch	375J	1.98	1.89	375J	1.45	1.38	375N	1.04	.99
Octal D flip-flop with enable	377J	5.07	4.83	377J	3.75	3.58	377N	2.30	2.19
Hex D flip-flop with enable	378J	2.33	2.22	378J	1.72	1.63	378N	1.35	1.29
4-bit D flip-flop with enable	379J	2.33	2.22	379J	1.72	1.63	379N	1.35	1.29
Quad adder/subtractor	385J	10.46	9.96	385J	6.98	6.65	385N	5.40	5.14
Quad Exclusive-OR gate	386J	1.44	1.37	386J	1.06	1.01	386N	.78	.74
Dual decade counter	390J	3.33	3.17	390J	2.46	2.35	390N	2.04	1.94
Dual 4-bit binary counter	393J	3.15	3.00	393J	2.33	2.22	393N	1.91	1.82
Shift register, 3-state	395J	2.99	2.85	395J	2.20	2.10	395N	1.77	1.69
Quad 2-input multiplexer with output regulator	398J	6.89	6.56	398J	4.60	4.39	398N	3.26	3.10
LS398 with Q and Q outputs	399J	3.04	2.89	399J	2.24	2.14	399N	1.88	1.79
Dual decade counter	490J	5.37	5.11	490J	3.96	3.77	490N	3.55	3.38
Octal inverting bus/line driver	.....	.....	.....	540J	2.70	2.57	540N	1.64	1.57
Octal bus/line driver	.....	.....	.....	541J	2.70	2.57	541N	1.64	1.57
Decade up/down counter, 3-state	568J	11.07	10.54	568J	7.38	7.03	568N	6.06	5.77
Binary up/down counter, 3-state	569J	11.07	10.54	569J	7.38	7.03	569N	6.06	5.77
Octal transceiver w/storage, 3-state	.....	.....	.....	620J	3.68	3.51	620N	2.63	2.50
Octal transceiver w/storage w/OC	.....	.....	.....	621J	3.68	3.51	621N	2.63	2.50
Octal transceiver w/storage w/OC	.....	.....	.....	622J	3.68	3.51	622N	2.63	2.50
Octal transceiver w/storage, 3-state	.....	.....	.....	623J	3.68	3.51	623N	2.63	2.50
Octal inverting bus transceiver	640J	5.84	5.56	640J	4.34	4.13	640N	3.02	2.88
Octal non-inverting bus transceiver	641J	5.84	5.56	641J	4.34	4.13	641N	3.02	2.88
Octal inverting bus transceiver	642J	5.84	5.56	642J	4.34	4.13	642N	3.02	2.88
Octal true/inverting bus transceiver	643J	5.84	5.56	643J	4.34	4.13	643N	3.02	2.88
Octal true/inverting bus transceiver	644J	5.84	5.56	644J	4.34	4.13	644N	3.02	2.88
Octal non-inverting bus trtansceiver	645J	5.67	5.40	645J	4.21	4.01	645N	2.76	2.63
Sync 4-bit up/down decode counter	.....	.....	.....	668J	1.72	1.63	668N	1.31	1.24
Sync 4-bit up/down binary counter	.....	.....	.....	669J	1.72	1.63	669N	1.31	1.24
4×4 register file, 3-state	670J	5.15	4.90	670J	3.81	3.63	670N	3.39	3.23
8-bit magnitude comparator w/OC	.....	.....	.....	683J	6.15	5.85	683N	5.09	4.85
8-bit magnitude comparator w/OC	.....	.....	.....	685J	6.15	5.85	685N	5.09	4.85
8-bit magnitude comparator w/enable	.....	.....	.....	687J	7.77	7.40	687N	6.55	6.24
Programmable decode counter	.....	.....	.....	716J	9.94	9.47	716N	9.53	9.08
Programmable binary counter	.....	.....	.....	718J	9.94	9.47	718N	9.53	9.08
Synchronous Address Multiplexer	.....	.....	.....	.....	.....	.....	783N	28.59	27.23
Octal buffer, 3-state	.....	.....	.....	795J	3.05	2.90	795N	1.99	1.90
Octal buffer, 3-state	.....	.....	.....	796J	3.05	2.90	796N	1.99	1.90
Octal buffer, 3-state	.....	.....	.....	797J	3.05	2.90	797N	1.99	1.90
Octal buffer, 3-state	.....	.....	.....	798J	3.05	2.90	798N	1.99	1.90

MIL-M-38510 MICROCIRCUITS AVAILABLE ON MANY DEVICE TYPES

MOTOROLA Semiconductors

LINEAR INTEGRATED CIRCUITS

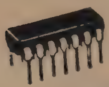
Case 614

Case 626

Case 29

Case 632

Case 11


Case 646

Case 79

Case 221A

OPERATIONAL AMPLIFIERS

NON-COMPENSATED

Military temperature range −55°C to +125°C

Motorola Type	Case	Description	Max. I_{IB} μA	Min. A_{vol} V/V	S.R. V/μs Typ.	Net Each, Lots of 1-9	10-49	50-49
LM101AH	601	General purpose	0.075	50K	0.5	$2.85	$2.71	$2.58
MC1539G	603	High slew rate	0.5	50K	4.2	7.54	7.18	6.82
MC1709G	601	General purpose	0.5	25K	0.3	2.10	2.00	1.90
MC1748G	601	General purpose	0.5	50K	0.5	1.96	1.86	1.77

Industrial temperature range 0°C to +70°C.

Motorola Type	Case	Description	Max. I_{IB} μA	Min. A_{vol} V/V	S.R. V/μs Typ.	Net Each, Lots of 1-9	10-49	50-49
LM301AH	601	General purpose	0.25	25K	0.5	$1.36	$1.29	$1.23
LM308H	601	Precision	7.0	25K	0.3	2.14	2.04	1.93
LM308AH	601	Precision	7.0	80K	0.3	6.16	5.87	5.57
MC1439G	601	High slew rate	1.0	15K	4.2	4.99	4.75	4.51
MC1709CG	601	General purpose	1.5	15K	0.3	1.36	1.29	1.23
MC1748CG601	601	General purpose	0.5	20K	0.5	1.26	1.20	1.14

INTERNALLY COMPENSATED

Military temperature range −55°C to +125°C.

Motorola Type	Case	Description	Max. I_{IB} μA	Min. A_{vol} V/V	S.R. V/μs Typ.	Net Each, Lots of 1-9	10-49	50-99
LF155H	601	FET input	0.0001	50K	5.0	$7.99	$7.61	$7.23
LF156H	601	FET input	0.0001	50K	15	7.99	7.61	7.23
LF157H	601	FET input	0.0001	50K	75	7.99	7.61	7.23
MC1536G	601	General purpose	0.02	100K	2.0	22.82	21.73	20.65
MC1556G	601	High performance	0.015	100K	.....	2.85	2.71	2.58
MC1733G	601	Differential video amp	0.2	90	0.5	2.85	2.71	2.58
MC1741G	601	General purpose	0.5	50K	0.5	2.10	2.00	1.90
MC1741NG	601	Low noise	0.5	50K	0.5	2.31	2.20	2.09
MC1741SG	601	High slew rate	0.5	50K	10	2.98	2.83	2.69
MC1776G	601	μPower programmable	0.0075	200K	0.2	7.18	6.84	6.49
MC35001BU	693	TRIMFET input	0.0001	50K	13	5.95	5.67	5.38

Industrial temperature range 0°C to +70°C.

Motorola Type	Case	Description	Max. I_{IB} μA	Min. A_{vol} V/V	S.R. V/μs Typ.	Net Each, Lots of 1-9	10-49	50-99
LF355H	601	FET input	0.0002	50K	5.0	$2.58	$2.46	$2.34
LF356H	601	FET input	0.0002	50K	15	2.58	2.46	2.34
LF357H	601	FET input	0.0002	50K	75	2.58	2.46	2.34
LM307H	601	General purpose	0.25	25K	0.5	1.49	1.42	1.35
MC1436G	601	High voltage	0.04	70K	2.0	9.61	9.15	8.69
MC1456G	601	High performance	0.03	70K	2.5	2.25	2.14	2.03
MC1733CG	601	Differential video amp	30.0	80	.....	2.10	2.00	1.90
MC1741CG	601	General purpose	0.5	20K	0.5	1.41	1.34	1.28
MC1741NCG	601	Low noise	0.5	20K	0.5	1.98	1.89	1.80
MC1741SCG	601	High slew rate	0.5	20K	10	2.46	2.34	2.22
MC1776CG	601	μPower programmable	0.003	100K	0.2	2.46	2.34	2.22
MC3476G	601	Low cost Power	0.0002	50K	0.2	2.64	2.51	2.39
MC34001G	601	TRIMFET input	0.0002	25K	13	2.19	2.09	1.98
MC34001BG	601	TRIMFET input	0.0002	50K	13	3.91	3.72	3.54

Same as listed at the left, except additional case types that are available.

Motorola Type	Case	Net Each, Lots of 1-9	10-49	50-99
LM101AJ	693	$2.71	$2.58	$2.45
MC1539L	632	7.18	6.84	6.49
MC1709CG	601	1.36	1.29	1.23
MC1709CL	632	1.44	1.37	1.30
MC1709L	632	2.04	1.94	1.85
MC1748CG	601	1.26	1.20	1.14
MC1748CU	693	1.02	.97	.92
MC1748U	693	2.22	2.12	2.01
LM301AJ	693	1.20	1.14	1.09
LM301AN	626	.60	.57	.54
LM308D	693	1.80	1.72	1.63
LM308J	632	2.43	2.31	2.20
LM308N	626	1.15	1.09	1.04
LM308AJ	632	6.13	5.84	5.55
LM308AN	626	4.54	4.32	4.11
MC1439L	632	4.62	4.40	4.18
MC1439P1	626	3.97	3.78	3.59
MC1439P2	646	4.12	3.92	3.73
MC1709CL	632	1.44	1.37	1.30
MC1709CP1	626	1.02	.97	.92
MC1709CP2	646	1.08	1.02	.97
MC1709L	632	2.04	1.94	1.85
MC1748CP1	626	.66	.63	.59
MC1748CU	693	1.02	.97	.92
LF155J	693	7.93	7.55	7.18
LF156J	693	7.93	7.55	7.18
LF157J	693	7.93	7.55	7.18
MC1536U	693	22.53	21.45	20.38
MC1556L	632	3.13	2.98	2.83
MC1556U	693	3.13	2.98	2.83
MC1733L	632	3.39	3.23	3.07
MC1741NU	693	2.25	2.14	2.03
MC1776U	693	9.48	9.03	8.58
LF355J	693	2.53	2.41	2.29
LF355N	626	1.83	1.74	1.66
LF356J	693	2.53	2.41	2.29
LF356N	626	1.83	1.74	1.66
LF357J	693	2.53	2.41	2.29
LF357N	626	1.83	1.74	1.66
LM307N	626	.87	.83	.78
MC1436U	693	7.99	7.61	7.23
MC1456L	632	3.27	3.11	2.96
MC1456PI	626	1.96	1.86	1.77
MC1456U	693	3.27	3.11	2.96
MC1733CL	632	1.89	1.80	1.71
MC1733CP	646	1.30	1.24	1.18
MC1741CP1	626	.78	.75	.71
MC1741CP2	646	1.05	1.00	.95
MC1741CU	693	1.37	1.30	1.24
MC1741NCL	632	1.96	1.86	1.77
MC1741NCP1	626	1.26	1.20	1.14
MC1741NCP2	646	1.40	1.33	1.26
MC1741NCU	693	1.96	1.86	1.77
MC1741SCP1	626	1.89	1.80	1.71
MC1776CP1	626	2.07	1.97	1.87
MC1776CU	693	2.31	2.20	2.09
MC3476P1	626	2.11	2.01	1.91
MC3476U	693	2.49	2.37	2.25
MC34001P	626	1.44	1.37	1.30
MC34001U	693	1.96	1.86	1.77
MC34001BP	626	2.53	2.41	2.29
MC34001BU	693	3.70	3.53	3.35

SEE OTHER MOTOROLA IC PAGES FOR CASE ILLUSTRATIONS

DUAL OPERATIONAL AMPLIFIERS

INTERNALLY COMPENSATED

Military temperature range −55°C to +125°C.

Motorola Type	Case	Description	Max. I_{IB} µA	Min. A_{vol} V/V	S.R. V/µs Typ.	Net Each, Lots of		
						1-9	10-49	50-99
MC1558G	601	Dual general purpose	0.5	50K	0.8	$2.67	$2.54	$2.41
MC1558NG	601	Low noise	0.5	50K	0.8	8.56	8.15	7.75
MC1558SG	601	High slew rate	0.5	50K	10	8.59	8.18	7.77
MC1747G	601	Dual general purpose	0.5	50K	0.5	3.48	3.31	3.15
MC3558G	601	Dual low power	0.5	50K	0.6	6.01	5.72	5.43
MC4558G	601	High frequency	0.5	50K	1.5	3.90	3.71	3.53

Industrial temperature range 0°C to +70°C.

Motorola Type	Case	Description	Max. I_{IB} µA	Min. A_{vol} V/V	S.R. V/µs Typ.	Net Each, Lots of		
						1-9	10-49	50-99
LM358H	601	Single supply	0.25	25K	0.6	$1.54	$1.46	$1.39
MC1458G	601	Dual general purpose	0.5	20K	0.8	1.51	1.44	1.36
MC1458NG	601	Low noise	0.5	20K	0.8	4.05	3.86	3.66
MC1458SG	601	High slew rate	0.5	20K	10	4.99	4.75	4.51
MC1747CG	601	Dual general purpose	0.5	25K	0.5	1.75	1.66	1.58
MC3458G	601	Single supply	0.5	20K	0.6	1.96	1.86	1.77
MC4558CG	601	High frequency	0.5	20K	1.5	1.65	1.57	1.49
MC34002G	601	TRIMFET input	0.0001	25K	13	2.56	2.43	2.31

NON-COMPENSATED

Military temperature range −55°C to +125°C.

Motorola Type	Case	Description	Max. I_{IB} µA	Min. A_{vol} V/V	S.R. V/µs Typ.	Net Each, Lots of		
						1-9	10-49	50-99
MC1537L	632	Dual general purpose	0.5	25K	0.25	$4.44	$4.23	$4.02

Industrial temperature range 0°C to +70°C.

Motorola Type	Case	Description	Max. I_{IB} µA	Min. A_{vol} V/V	S.R. V/µs Typ.	Net Each, Lots of		
						1-9	10-49	50-99
MC1437L	632	Dual MC1709	1.5	15K	0.25	$3.99	$3.80	$3.61

Same as listed at the left, except additional case types that are available.

Motorola Type	Case	Net Each, Lots of		
		1-9	10-49	50-99
MC1558L	632	$2.35	$2.23	$2.12
MC1558NL	632	8.49	8.09	7.68
MC1558NU	693	7.44	7.09	6.74
MC1558SL	632	8.53	8.13	7.72
MC1558SU	693	6.42	6.12	5.81
MC1747L	632	3.42	3.26	3.10
MC3558U	693	5.67	5.40	5.13
MC4558U	693	3.87	3.68	3.50
LM358J	693	1.51	1.44	1.36
LM358N	626	1.02	.97	.92
MC1458L	632	1.59	1.52	1.44
MC1458P1	626	1.08	1.02	.97
MC1458U	693	1.41	1.34	1.28
MC1458P2	646	1.15	1.09	1.04
MC1458NL	632	3.99	3.80	3.61
MC1458NP1	626	3.35	3.19	3.03
MC1458NP2	646	3.66	3.49	3.31
MC1458NU	693	3.76	3.58	3.40
MC1458SL	632	4.93	4.70	4.46
MC1458SP1	626	3.35	3.19	3.03
MC1458SP2	646	3.63	3.46	3.29
MC1458SU	693	4.75	4.52	4.30
MC1747CL	632	1.77	1.69	1.61
MC1747CP2	646	1.45	1.38	1.31
MC3458P1	626	1.15	1.09	1.04
MC3458U	693	1.80	1.72	1.63
MC4558CP1	626	1.12	1.06	1.01
MC4558CU	693	1.62	1.54	1.47
MC34002P	626	1.86	1.77	1.68
MC34002U	693	2.46	2.34	2.22
MC1437P	646	3.14	2.99	2.84

QUAD OPERATIONAL AMPLIFIERS

INTERNALLY COMPENSATED

Military temperature range −55°C to +125°C.

Motorola Type	Case	Description	Max. I_{IB} µA	Min. A_{vol} V/V	S.R. V/µs Typ.	Net Each, Lots of		
						1-9	10-49	50-99
LM124J	632	Low power	0.15	50K	0.6	$5.20	$4.95	$4.70
MC3503L	632	General purpose	0.5	50K	0.6	18.62	17.73	16.84
MC4741L	632	General purpose	0.5	50K	0.5	8.49	8.09	7.68

Industrial temperature range 0°C to +70°C.

LM324J	632	Low power	0.25	25K	0.6	$2.26	$2.16	$2.05
MC3401L	632	Norton input	0.3	1K	0.6	2.28	2.17	2.06
MC3403L	632	No crossover distortion	0.5	20K	0.6	2.64	2.51	2.39
MC4741CL	632	General purpose	0.5	20K	0.5	4.75	4.52	4.30
MC34004L	632	TRIMFET input	0.0002	25K	13	4.18	3.98	3.78
MC34004BL	632	TRIMFET input	0.0002	50K	13	5.82	5.55	5.27

Automotive temperature range −40°C to +85°C.

LM2902N	546	Diff. low power	0.5	....	0.6	$1.96	$1.86	$1.77
MC3301P	646	Norton input	0.3	1K	0.6	1.23	1.17	1.11
MC3303L	632	Differential	0.5	20K	0.6	6.34	6.04	5.74

Same as listed at the left, except additional case types.

Motorola Type	Case	Net Each, Lots of		
		1-9	10-49	50-99
LM324N	646	$1.36	$1.29	$1.23
MC3401P	646	1.20	1.14	1.09
MC3403P	646	1.77	1.69	1.60
MC4741CP	646	1.96	1.86	1.77
MC34004P	646	3.52	3.35	3.18
MC34004BP	646	4.86	4.63	4.40
MC3303P	646	5.80	5.52	5.24

HIGH FREQUENCY AMPLIFIERS

Temperature −55°C to +125°C.

Motorola Type	Case	Bandwidth at A_V		V_{OS} p-p V	Net Each, Lots of		
		MHz	dB		1-9	10-49	50-99
MC1445L†	632	50	19.5	2.5	$4.15	$3.95	$3.75
MC1445G†	603				4.20	4.00	3.80
MC1545L	632	50	19.5	2.5	14.80	14.10	13.39
MC1545G	603				14.86	14.15	13.44
MC1550G	603	22	22	....	4.80	4.58	4.35
MC1590G	601	.....	....	13	9.76	9.30	8.83
MC1733L	632	90	100	4.0	3.39	3.23	3.07
MC1733G	603				2.85	2.71	2.58
MC1733CL†	632	90	100	4.0	1.89	1.80	1.71
MC1733CG†	603				2.10	2.00	1.90
NE592F†	632	40	100	4.0	2.61	2.49	2.36
SE592F					5.85	5.57	5.29

†Temperature, 0° to +75°C.

VOLTAGE COMPARATORS

Motorola Type	Case	Function	Net Each, Lots of		
			1-9	10-49	50-99
LM111H	601	Precision comparator	$12.19	$11.61	$11.03
LM211H	601		6.19	5.89	5.60
LM311H	601		1.82	1.73	1.64
LM311N	626		.98	.93	.88
LM139J	632	Quad single supply	3.84	3.66	3.48
LM139AJ	632		13.41	12.77	12.13
LM239J	632		3.49	3.33	3.16
LM239N	646		2.92	2.78	2.64
LM239AJ	632		7.86	7.49	7.11
LM239AN	646		6.40	6.09	5.79
LM339J	632		1.82	1.73	1.64
LM339N	646		.85	.81	.77
LM339AJ	632		3.70	3.53	3.35
LM339AN	646		3.06	2.91	2.77
LM2901N	646	Quad comparator	1.20	1.14	1.09
MC1414L	632	Dual differential comparator	2.56	2.43	2.31
MC1414P	646		1.80	1.72	1.63
MC1710G	601	Differential comparator	2.50	2.38	2.26
MC1710L	632		2.14	2.04	1.93
MC1710CG	601		1.65	1.57	1.49
MC1710CL	632		1.33	1.26	1.20
MC1710CP	646		.89	.85	.81
MC1711G	601	Dual differential	2.50	2.38	2.26
MC1711L	632		2.14	2.04	1.93
MC1711CG	601		1.65	1.57	1.49
MC1711CL	632		1.44	1.37	1.30
MC1711CP	646		.89	.85	.81
MC3302L	632	Quad single supply	2.04	1.94	1.85
MC3302P	646		1.12	1.06	1.01
MC3430L	620	Quad high speed	7.44	7.09	6.74
MC3430P	648		6.28	5.99	5.69
MC3431L	620		6.70	6.38	6.07
MC3431P	648		5.71	5.44	5.17
MC3432L	620		7.44	7.09	6.74
MC3432P	648		6.28	5.99	5.69
MC3433L	620		6.70	6.38	6.07
MC3433P	648		5.71	5.44	5.17

INTERFACE CIRCUITS

Interface circuits fit in the gray area between the linear and digital realms. Usually these IC's perform the necessary translation between an analog signal input and the required digital logic levels or vice versa.

LINE DRIVERS, RECEIVERS AND TRANSCEIVERS

Motorola Type	Case	Function	Net Each, Lots of		
			1-9	10-49	50-99
AM26LS31DC AM26LS31PC	620 648	Quad 3-state line driver	$4.65 3.91	$4.43 3.72	$4.21 3.54
DS8641J DS8641N	620 648	Quad unified bus transceiver	3.49 2.39	3.33 2.27	3.16 2.16
MC8T13L MC8T13P	620 648	Open-emitter dual line driver TTL compatible	3.00 2.23	2.86 2.13	2.72 2.02
MC8T14L MC8T14P	620 648	Hysteresis-equipped line rec. TTL compatible	3.00 2.23	2.86 2.13	2.72 2.02
MC8T23L MC8T23P	620 648	Open-emitter dual line driver IBM system compatible	3.00 2.23	2.86 2.13	2.72 2.02
MC8T24L MC8T24P	620 648	Hysteresis-equipped line rec. IBM system compatible	3.00 2.23	2.86 2.13	2.72 2.02
MC8T26AL MC8T26AP	620 648	Quad 3-state bus transceiver	2.42 2.10	2.30 2.00	2.19 1.90
MC8T28L MC8T28P	620 648	Noninverting bus transceiver	2.42 2.10	2.30 2.00	2.19 1.90
MC8T95L MC8T95P	620 648	Noninv. Hex 3-state buffer inverters	2.31 2.00	2.20 1.90	2.09 1.81
MC8T96L MC8T96P	620 648	Inv.	2.31 2.00	2.20 1.90	2.09 1.81
MC8T97L MC8T97P	620 648	Noninv.	2.31 2.00	2.20 1.90	2.09 1.81
MC8T98L MC8T98P	620 648	Inv.	2.31 2.00	2.20 1.90	2.09 1.81
MC26S10L MC26S10P	620 648	Quad bus transceiver	3.77 3.00	3.59 2.86	3.41 2.72
MC75S110L MC75S110P	632 646	Dual differential line driver	3.45 2.56	3.29 2.43	3.12 2.31
MC1411P	648	G.P. Seven Darlington transistor array with output clamp diodes	1.68	1.60	1.52
MC1412P	648	PMOS	1.68	1.60	1.52
MC1413P	648	CMOS	1.68	1.60	1.52
MC1416P	648	MOS	1.68	1.60	1.52
MC1472P1 MC1472U	626 693	Dual peripheral positive NAND driver	2.32 2.79	2.21 2.66	2.10 2.53
MC1488L MC1488P	632 646	Quad line driver	1.68 1.47	1.60 1.40	1.52 1.33
MC1489AL MC1489AP	632 646	Quad line receiver	1.89 1.47	1.80 1.40	1.71 1.33
MC3437L MC3437P	620 648	Hex line receiver hysteresis equipped	4.33 3.81	4.12 3.63	3.92 3.45
MC3438L MC3438P	620 648	Quad line transceiver with open collectors	4.33 3.81	4.12 3.63	3.92 3.45
MC3440AP MC3441AP	648 648	Quad line transceiver	4.47 4.47	4.26 4.26	4.04 4.04
MC3443AP MC3446AP	648 648		4.47 4.68	4.26 4.46	4.04 4.23
MC3447L MC3447P	623 724	Octal line transceiver	8.35 6.61	7.95 6.29	7.56 5.98
MC3448AL MC3448AP	620 648	Quad line transceiver	5.59 5.22	5.32 4.97	5.05 4.73
MC3450L MC3450P MC3450L MC3452P	620 648 620 648	Quad line receiver	6.70 5.71 6.70 5.71	6.38 5.44 6.38 5.44	6.07 5.17 6.07 5.17
MC3453L MC3453P	620 648	Quad line driver	7.33 6.37	6.98 6.07	6.63 5,76
MC3481L MC3481P	620 648	Quad line driver	7.26 6.63	6.92 6.32	6.57 6.00

Motorola Type	Case	Function	Net Each, Lots of		
			1-9	10-49	50-99
MC3482AL MC3482BL	732 732	Octal unidirectional bus extender	$6.13 6.34	5.84 6.04	5.55 5.74
MC3485L MC3485P	620 648	Quad line receiver	7.26 6.63	6.92 6.32	6.57 6.00
MC3486L MC3486P	620 648	Quad line driver	4.26 3.52	4.06 3.35	3.85 3.18
MC3487L MC3487P	620 648	Quad line driver	4.26 3.52	4.06 3.35	3.85 3.18
MC3490P MC3491P MC3492P MC3494P	648 701 701 648	High level gas discharge drivers	4.40 4.57 5.22 4.40	4.19 4.35 4.97 4.18	3.98 4.13 4.73 3.98
MC6880AL MC6880AP	620 648	Quad bus transceiver	2.42 2.10	2.30 2.00	2.19 1.90
MC6882AL MC6882BL	732 738	Octal bus extender	6.13 6.34	5.84 6.04	5.55 5.74
MC6885L	620	Non-inv. Hex unidirectional address and control bus extenders	2.31	2.20	2.09
MC6885P	648	Non-inv.	2.00	1.90	1.81
MC6886L	620	Inv.	2.31	2.20	2.09
MC6886P	648	Inv.	2.00	1.90	1.81
MC6887L	620	Non-inv.	2.31	2.20	2.09
MC6887P	648	Non-inv.	2.00	1.90	1.81
MC6888L	620	Inv.	2.31	2.20	2.09
MC6888P	648	Inv.	2.00	1.90	1.81
MC6889L MC6889P	620 648	Quad bus transceiver	2.42 2.10	2.30 2.00	2.19 1.90
MC10177L MC55107L MC55108L	620 632 632	Triple line driver Dual line receivers	7.63 7.44 7.44	7.26 7.09 7.09	6.92 6.74 6.74
MC55325L MC75107L MC75107P MC75108L MC75108P	620 632 646 632 646	Core driver Dual line receivers	10.52 2.58 2.04 2.58 2.04	10.02 2.46 1.94 2.46 1.94	9.51 2.34 1.85 2.34 1.85
MC75125L MC75125P MC75127L MC75127P	620 648 620 648	7-channel line receivers	5.24 3.91 5.24 3.91	4.99 3.72 4.99 3.72	4.74 3.54 4.74 3.54
MC75128L MC75128P MC75129L MC75129P	620 648 620 648	8-channel line receivers	6.40 4.75 6.40 4.75	6.09 4.52 6.09 4.52	5.79 4.30 5.79 4.30
MC75325L	620	Core driver	4.62	4.40	4.18
MC75491P MC75492P	646 646	Quad LED segment driver Hex LED digit driver	1.29 1.68	1.22 1.60	1.16 1.52
MMH0026G MMH0026L MMH0026CG MMH0026CL MMH0026CP1	601 632 601 632 626	Dual clock drivers	20.60 20.54 6.47 4.96 2.61	19.62 19.56 6.16 4.72 2.49	18.64 18.59 5.85 4.49 2.36

MOTOROLA
Semiconductors

LINEAR INTEGRATED CIRCUITS

FIXED OUTPUT VOLTAGE REGULATORS

TJ = 0°C to +150°C.

Motorola Type	Case	Output		Max. IO mA	Net Ea., Lots of		
		V	Tol. ±V		1-9	10-49	50-99
POSITIVE OUTPUT							
MC78L05CG	79	5.0	0.5	100	$1.80	$1.72	$1.63
MC78M05CT	313	5.0	0.25	500	2.40	2.29	2.17
LM309H	11	5.0	0.25	3000	4.20	4.00	3.80
MC78M06CT	313	6.0	0.3	500	1.47	1.40	1.33
MC78M08CT	313	8.0	0.4	500	1.47	1.40	1.33
MC78L12CG	79	12	1.2	100	2.40	2.29	2.17
MC78M12CT	313	12	0.6	500	1.47	1.40	1.33
MC78L15CG	79	15	1.5	100	1.80	1.72	1.63
MC78M15CT	313	15	0.75	500	1.47	1.40	1.33
MC78L18CG	79	18	1.8	100	1.80	1.72	1.63
MC78M18CT	313	18	0.9	500	2.40	2.29	2.17
MC78M20CT	313	20	1.0	500	1.47	1.40	1.33
MC78L24CG	79	24	2.4	100	1.80	1.72	1.63
NEGATIVE OUTPUT							
MC7902CK	1	2.0	0.1	1500	$4.20	$4.00	$3.80
MC7902CT	221A	2.0	0.1	1500	2.10	2.00	1.90
MC79L03CG	79	3.0	0.3	100	2.25	2.14	2.03
MC79L03CP	29	3.0	0.3	100	1.12	1.06	1.01
MC79L03ACG	79	3.0	0.15	100	3.10	2.95	2.81
MC79L03ACP	29	3.0	0.15	100	1.75	1.66	1.58
MC79L05CG	79	5.0	0.5	100	2.25	2.14	2.03
MC79L05ACG	79	5.0	0.25	100	3.10	2.95	2.81
MC7905CK	11	6.0	0.25	1500	4.20	4.00	3.80
MC7906CK	11	8.0	0.3	1500	4.20	4.00	3.80
MC7908CK	11	12	0.4	1500	4.20	4.00	3.80
MC79L12CG	79	15	1.2	100	2.25	2.14	2.03
MC79L15CG	79	15	1.5	100	2.25	2.14	2.03
MC79L15ACG	79	15	0.75	100	3.10	2.95	2.81
MC7915CK	11	18	0.75	1500	4.20	4.00	3.80
MC79L18CG	79	18	1.8	100	2.25	2.14	2.03
MC79L18ACG	79	18	0.9	100	3.10	2.95	2.81
MC7918CK	11	18	0.9	1500	4.20	4.00	3.80
MC79L24CG	79	24	2.4	100	2.25	2.14	2.03
MC79L24ACG	79	24	1.2	100	3.10	2.95	2.81
MC7924CK	11	24	1.2	1500	4.20	4.00	3.80

VARIABLE OUTPUT VOLTAGE REGULATORS

PD at 25°C.

Motorola Type	Case	VO VDC	Maximum		Net Ea., Lots of		
			I_O mA	P_D W	1-9	10-49	50-99
POSITIVE OUTPUT							
MC1723G	603C	2.0-37	150	0.65	$2.95	$2.81	$2.67
MC1469G	603	2.5-32	250	0.68	6.01	5.72	5.43
MC1569G	603	2.5-32	250	0.68	9.61	9.15	8.69
NEGATIVE OUTPUT							
MC1463G	603	3.8-32	250	0.68	$ 6.03	$ 5.75	$ 5.46
MC1563G	603	3.6-33	250	0.68	11.28	10.75	10.21

SPECIAL REGULATORS

FLOATING REGULATORS

Designed for laboratory type power supplies, these regulators can deliver hundreds of volts—limited only by the breakdown voltage of associated, external, series-pass transistors.

Motorola Type	Case	Volts	I_O mA	Max. P_D W	Net Each, Lots of		
					1-9	10-49	50-99
MC1466L	632	‡	§	0.75	14.08	$13.41	$12.74
MC1566L	632	‡	#	0.75	18.28	17.41	16.54

‡Limited only by the characteristics of the external series-pass elements.
§Current regulation 0.2%; #0.1%.

DUAL ±15 V TRACKING REGULATORS

Dual polarity regulators designed to provide balanced positive and negative output voltages. Internally, the devices are set for ±15 V output; but an external adjustment can change both outputs simultaneously from 8 to 20 V.

MC1468G	603C	14.8-15.2	±100	0.8	$7.36	$7.01	$6.66
MC1468L	632	14.8-15.2	±100	1.0	7.44	7.09	6.74
MC1468R	614	14.8-15.2	±100	2.4	10.42	9.92	9.43
MC1568G	603C	14.8-15.2	±100	0.8	9.06	8.63	8.20
MC1568L	632	14.8-15.2	±100	1.0	8.49	8.09	7.68
MC1568R	614	14.8-15.2	±100	2.4	13.42	12.78	12.14
LOW TEMPERATURE DRIFT, LOW VOLTAGE REFERENCE							
MC1403U	693	2.5	10	.....	$ 3.78	$ 3.60	$ 3.42
MC1403AU	693	2.5	10	.....	8.71	8.30	7.88
MC1503U	693	2.5	10	.....	10.63	10.12	9.62
MC1503AU	693	2.5	10	.....	19.90	18.95	18.01

SWITCHING TYPES

Motorola Type	Case	Min.-Max.		Max. IO ±mA	Net Each, Lots of		
		VCC Volts	fO kHx		1-9	10-49	50-99
MC3420L	620	10-30	2-100	40	$10.08	$9.60	$9.12
MC3420P	648	10-30	2-100	40	9.48	9.03	8.58

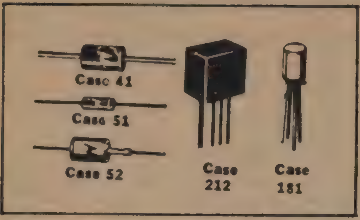
CONSUMER DEVICES

Motorola Type	Case	Function	Net Each, Lots of		
			1-9	10-49	50-99
MC1357P	646	Sound IF detector,	$2.19	$2.08	$1.98
MC1358P	646	Sound IF detector, DC volume control, preamp	1.91	1.82	1.73
MC1349P	626	1st and 2nd video IF	1.72	1.63	1.56
MC1350P	626	1st and 2nd video IF	1.44	1.37	1.30
MC1352P	646	1st and 2nd video IF, AGC, keyer and amp.	2.01	1.91	1.82
MC1330A1P	626	3rd video IF, detector, video amp and AFC buffer	2.20	2.10	2.00
MC1330A2P	626	3rd video IF, detector, video amp and AFC buffer	2.20	2.10	2.00
MC1324P	646	Dual chroma demod.	2.67	2.54	2.42
MC1391P	626	Horizontal processor	1.44	1.37	1.30
MC1394P	626	Horizontal processor	1.44	1.37	1.30

Motorola Type	Case	Function	Net Each, Lots of		
			1-9	10-49	50-99
RADIO CIRCUITS					
MC1350P	626	IF amplififer	$1.44	$1.37	$1.30
MC1355P	646	Limiting FM IF amplifier	2.10	2.00	1.90
MC1356P	646	Limiting FM IF amplifier with quadrature detector	2.29	2.18	2.08
MC1357P	646	Limiting FM IF amplifier with quadrature detector	2.19	2.08	1.98
MC1310P	646	FM multiplex stereo	6.29	5.99	5.71
ORGAN CIRCUITS					
MC3340P	626	Electronic atenuator	$2.10	$2.00	$1.90
AUTOMOTIVE CIRCUITS					
MC3301P	646	Quad operational amplifier	$1.23	$1.17	$1.11
MC3302P	646	Quad comparator	1.12	1.06	1.01
LM239N	646	Quad comparator	2.92	2.78	2.64
MC3325P	646	Automotive regulator	2.10	2.00	1.90
MC3333P	646	Variable dwell ignition	4.75	4.52	4.30
TRANSISTOR ARRAYS					
MC3346P	646	Differential pair and three isolated transistors	$1.49	$1.42	$1.35

MOTOROLA
Semiconductors

Silicon Zener Reference Diodes



Extremely stable voltage reference sources. Diffused junction units combine smallest size with tight stability.

400-mW SUBMINIATURE

6.2 VOLT (CASE 51)

Temperature Range: −55°C to +100°C. **Voltage Range:** 5.9—6.5 volts at 7.5 mA. **Dynamic Impedance:** 15 ohms max.; 10 ohms suffix **A.**

Motorola Type	Avg. TC %/°C	Net Each, Lots of 1-9	10-49
1N821*	.01	$ 0.92	$ 0.88
1N821A	.01	1.83	1.75
1N823*	.005	1.83	1.75
1N823A	.005	2.27	2.17
1N825*	.002	2.42	2.31
1N825A	.002	2.79	2.65
1N827*	.001	5.98	5.70
1N827A	.001	9.24	8.80
1N829*	.0005	20.60	19.62
1N829A	.0005	24.71	23.53

*JAN, JTX, JTXV available to MIL-S-19500/159.

8.4 VOLT (CASE 51)

Temperature Range: −55°C to +100°C; −55°C to +150°C (suffix **A**). **Voltage Range:** 7.98—8.8 volts at 10 mA. **Dynamic Impedance:** 15 ohms maximum.

1N3154*	.01	$ 3.81	$ 3.63
1N3154A	.01	5.28	5.03
1N3155*	.005	5.21	4.96
1N3155A	.005	6.38	6.08
1N3156*	.002	9.02	8.59
1N3156A	.002	10.41	9.92
1N3157*	.001	11.14	10.61
1N3157A	.001	16.28	15.50

*JAN, JTX available to MIL-S-19500/158.

500-mW SUBMINIATURE

9.0 VOLT (CASE 51)

Temperature Range: 0°C to +75°C; −55°C to +100°C (suffix **A**); −55°C to +150°C (suffix **B**). **Voltage Range:** 8.55—9.45 volts at 7.5 mA, 25°C ambient. **Dynamic Impedance:** 20 ohms max.

1N935	.01	$ 2.71	$ 2.58
1N935A	.01	3.08	2.93
1N935B*	.01	4.18	3.98
1N936	.005	3.23	3.07
1N936A	.005	4.18	3.98
1N936B	.005	4.91	4.68
1N937	.002	6.31	6.01
1N937A	.002	7.19	6.84
1N937B*	.002	8.36	7.96
1N938	.001	8.80	8.38
1N938A	.001	9.53	9.08
1N938B*	.001	12.61	12.01
1N939	.0005	22.73	21.65
1N939A	.0005	32.04	30.51
1N939B*	.0005	34.53	32.89

*JAN, JTX, JTXV available to MIL-S-19500/156.

11.7 VOLT (CASE 51)

Temperature Range: 0°C to +75°C; −55°C to +100°C (suffix **A**); −55°C to +150°C (suffix **B**). **Voltage Range:** 11.12—12.29 volts at 7.5 mA. **Dynamic Impedance:** 30 ohms max.

1N941	.01	$ 4.03	$ 3.84
1N941A	.01	4.25	4.05
1N941B*	.01	4.55	4.33
1N942	.005	4.40	4.19
1N942A	.005	5.50	5.24
1N942B	.005	6.23	5.94
1N943	.002	8.73	8.31
1N943A	.002	8.80	8.38
1N943B*	.002	9.09	8.66
1N944	.001	12.83	12.22
1N944A	.001	16.50	15.71
1N944B*	.001	21.92	20.88

*JAN, JTX available to MIL-S-19500/157.

250-mW LOW LEVEL SUBMINIATURE

Temperature Range: 0°C to +75°C; −55°C to +100°C (suffix **A**)

6.4 VOLT (CASE 51)

Test Current: 0.5 mA. **Dynamic Impedance:** 200 ohms maximum.

Motorola Type	Avg. TC %/°C	Net Each, Lots of 1-9	10-49
1N4565	.01	$ 4.25	$ 4.05
1N4565A	.01	4.99	4.75
1N4566	.005	5.28	5.03
1N4566A	.005	6.31	6.01
1N4567	.002	9.75	9.29
1N4567A	.002	11.78	11.21
1N4568	.001	18.18	17.32
1N4568A	.001	27.13	25.84
1N4569	.0005	35.19	33.52
1N4569A	.0005	53.08	50.55

Test Current: 1.0 mA. **Dynamic Impedance:** 100 ohms maximum.

1N4570	.01	$ 2.79	$ 2.65
1N4570A	.01	3.37	3.21
1N4571	.005	3.52	3.35
1N4571A	.005	4.25	4.05
1N4572	.002	6.53	6.22
1N4572A	.002	7.92	7.54
1N4573	.001	12.02	11.45
1N4573A	.001	18.04	17.18
1N4574	.0005	23.61	22.48
1N4574A	.0005	36.07	34.35

Test Current: 2.0 mA. **Dynamic Impedance:** 50 ohms maximum.

1N4575	.01	$ 1.76	$ 1.68
1N4575A	.01	2.20	2.10
1N4576	.005	2.35	2.23
1N4576A	.005	2.86	2.72
1N4577	.002	4.33	4.12
1N4577A	.002	5.21	4.96
1N4578	.001	7.99	7.61
1N4578A	.001	12.63	12.02
1N4579	.0005	15.69	14.94
1N4579A	.0005	23.46	22.34

Test Current: 4.0 mA. **Dynamic Impedance:** 25 ohms maximum.

1N4580	.01	$ 1.20	$ 1.15
1N4580A	.01	1.47	1.40
1N4581	.005	1.54	1.47
1N4581A	.005	1.91	1.82
1N4582	.002	2.86	2.72
1N4582A	.002	3.45	3.28
1N4583	.001	5.35	5.10
1N4583A	.001	8.07	7.68
1N4584	.0005	10.41	9.92
1N4584A	.0005	15.69	14.94

8.5 VOLT (CASE 51)

Test Current: 0.5 mA. **Dynamic Impedance:** 200 ohms maximum

Motorola Type	Avg. TC %/°C	Net Each, Lots of 1-9	10-49
1N4775	.01	$ 12.68	$ 12.08
1N4775A	.01	14.22	13.55
1N4776	.005	17.16	16.34
1N4776A	.005	19.14	18.23
1N4777	.002	34.90	33.24
1N4777A	.002	38.80	36.95
1N4778	.001	60.27	57.40
1N4778A	.001	67.09	63.89
1N4779	.0005	131.24	124.99
1N4779A	.0005	145.90	138.95

Test Current: 1.0 mA. **Dynamic Impedance:** 100 ohms maximum.

1N4780	.01	$ 8.58	$ 8.17
1N4780A	.01	9.53	9.08
1N4781	.005	10.70	10.19
1N4781A	.005	11.88	11.31
1N4782	.002	19.43	18.50
1N4782A	.002	21.63	20.60
1N4783	.001	35.56	33.87
1N4783A	.001	39.59	37.71
1N4784	.0005	82.85	78.90
1N4784A	.0005	92.60	88.19

PRECISION REFERENCE DIODES (CASE 51)

Designed, manufactured and tested for ultra-high stability of voltage with time and temperature change. Calibration is directly traçeable to National Bureau of Standards.

Motorola Type	Nom. V_Z Volts	ΔV_Z* mV	Net Ea., Lots 1-9	10-49
MZ605	6.2 ± 5%	2.5	$72.55	$68.92
MZ610	6.2 ± 5%	2.5	36.97	35.13
MZ620	6.2 ± 5%	2.5	27.86	26.47
MZ640	6.2 ± 5%	2.5	24.67	23.44

*Over temperature range of +25°C to +100°C.

SURMETIC™ FORWARD REFERENCE DIODES GLASS PACKAGE

I_R = 10 µA max. at V_R = 5.0 V.

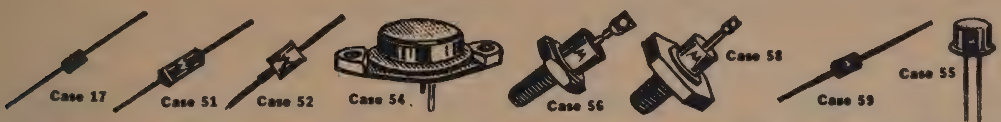
Motorola Type	V_F at I_F V	mA	Net Ea., Lots 1-9	10-49
MZ2360*	0.63–0.71	10	$0.41	$0.39
MZ2361†	1.24–1.38	10	.84	.80

*Case 59. †Case 51.

FIELD EFFECT CURRENT REGULATOR DIODES (CASE 51)

Motorola Type	Reg. mA	Net Ea., Lots of 1-9	10-49
1N5283	0.22	$8.07	$7.68
1N5284	0.24	8.07	7.68
1N5285	0.27	4.84	4.61
1N5286	0.30	4.84	4.61
1N5287	0.33	4.84	4.61
1N5288	0.39	4.84	4.61
1N5289	0.43	4.84	4.61
1N5290	0.47	8.07	7.68
1N5291	0.56	3.37	3.21
1N5292	0.62	3.37	3.21
1N5293	0.68	3.37	3.21
1N5294	0.75	3.37	3.21
1N5295	0.82	3.37	3.21
1N5296	0.91	3.37	3.21
1N5297	1.00	8.07	7.68
1N5298	1.10	3.37	3.21
1N5299	1.20	3.37	3.21
1N5300	1.30	3.37	3.21
1N5301	1.40	3.37	3.21
1N5302	1.50	3.37	3.21
1N5303	1.60	3.37	3.21
1N5304	1.80	3.37	3.21
1N5305	2.00	8.07	7.68
1N5306	2.20	3.37	3.21
1N5307	2.40	3.37	3.21
1N5308	2.70	3.37	3.21
1N5309	3.00	3.37	3.21
1N5310	3.30	3.37	3.21
1N5311	3.60	4.84	4.61
1N5312	3.90	4.84	4.61
1N5313	4.30	4.84	4.61
1N5314	4.70	8.07	7.68
MCL1300	0.5	3.37	3.21
MCL1301	1.0	3.37	3.21
MCL1302	2.0	3.37	3.21
MCL1303	3.0	3.37	3.21
MCL1304	4.0	3.37	3.21

Zener Diodes



Nom. Zener Volts	Case 51				Case 59 1 W	Case 52 1 W	Case 59 1.5 W	Case 55 1.5 W	Case 17 5 W	Case 56 10 W	Case 54 50 W	Case 58 50 W
	250 mW	400 mW	500 mW	500 mW								
2.4	....	....	1N4370	1N5221	....	....	....	....	....	....	....	....
2.7	....	....	1N4371	1N5223	....	....	....	....	....	....	....	....
3.0	....	....	1N4372	1N5225	....	....	....	....	....	....	....	....
3.3	....	1N5518	1N746	1N5226	1N4728	1N3821	1N5913	....	1N5333	....	....	....
3.6	....	1N5519	1N747	1N5227	1N4729	1N3822	1N5914	....	1N5334	....	....	....
3.9	....	1N5520	1N748	1N5228	1N4730	1N3823	1N5915	....	1N5335	1N3993	1N4557	1N4549
4.3	....	1N5521	1N749	1N5229	1N4731	1N3824	1N5916	....	1N5336	1N3994	1N4558	1N4550
4.7	....	1N5522	1N750	1N5230	1N4732	1N3825	1N5917	....	1N5337	1N3995	1N4559	1N4551
5.1	....	1N5523	1N751	1N5231	1N4733	1N3826	1N5918	....	1N5338	1N3996	1N4560	1N4552
5.6	....	1N5524	1N752	1N5232	1N4734	1N3827	1N5919	....	1N5339	1N3997	1N4561	1N4553
6.2	....	1N5525	1N753	1N5234	1N4735	1N3828	1N5920	....	1N5341	1N3998	1N4562	1N4554
6.8	1N4099	1N5526	1N754 1N957	1N5235	1N4736	1N3829	1N5921	1N3785	1N5342	1N3999	1N4563	1N4555
7.5	1N4100	1N5527	1N755 1N958	1N5236	1N4737	1N3830 1N3017	1N5922	1N3786	1N5343	1N4000 1N2971	1N4564 1N2805	1N4556 1N3306
8.2	1N4101	1N5528	1N756 1N959	1N5237	1N4738	1N3018	1N5923	1N3787	1N5344	1N2972	1N2806	1N3307
8.7	1N4102	....	....	1N5238	....	....	....	....	1N5345	....	....	....
9.1	1N4103	1N5529	1N757 1N960	1N5239	1N4739	1N3019	1N5924	1N3788	1N5346	1N2973	1N2807	1N3308
10	1N4104	1N5530	1N758 1N961	1N5240	1N4740	1N3020	1N5925	1N3789	1N5347	1N2974	1N2808	1N3309
11	1N4105	1N5531	1N962	1N5241	1N4741	1N3021	1N5926	1N3790	1N5348	1N2975	1N2809	1N3310
12	1N4106	1N5532	1N759 1N963	1N5242	1N4742	1N3022	1N5927	1N3791	1N5349	1N2976	1N2810	1N3311
13	1N4107	1N5533	1N964	1N5243	1N4743	1N3023	1N5928	1N3792	1N5350	1N2977	1N2811	1N3312
14	1N4108	1N5534	....	1N5244	....	....	....	....	1N5351	1N2978	1N2812	1N3313
15	1N4109	1N5535	1N965	1N5245	1N4744	1N3024	1N5929	1N3793	1N5352	1N2979	1N2813	1N3314
16	1N4110	1N5536	1N966	1N5246	1N4745	1N3025	1N5930	1N3794	1N5353	1N2980	1N2814	1N3315
17	1N4111	1N5537	....	1N5247	....	....	....	....	1N5354	....	1N2815	1N3316
18	1N4112	1N5538	1N967	1N5248	1N4746	1N3026	1N5931	1N3795	1N5355	1N2982	1N2816	1N3317
19	1N4113	1N5539	....	1N5249	....	....	....	....	1N5356	1N2983	1N2817	1N3318
20	1N4114	1N5540	1N968	1N5250	1N4747	1N3027	1N5932	1N3796	1N5357	1N2984	1N2818	1N3319
22	1N4115	1N5541	1N969	1N5251	1N4748	1N3028	1N5933	1N3797	1N5358	1N2985	1N2819	1N3320
24	1N4116	1N5542	1N970	1N5252	1N4749	1N3029	1N5934	1N3798	1N5359	1N2986	1N2820	1N3321
25	1N4117	1N5543	....	1N5253	....	....	....	....	1N5360	....	1N2821	1N3322
27	1N4118	....	1N971	1N5254	1N4750	1N3030	1N5935	1N3799	1N5361	1N2988	1N2822	1N3323
28	1N4119	1N5544	....	1N5255	....	....	....	....	1N5362	....	....	....
30	1N4120	1N5545	1N972	1N5256	1N4751	1N3031	1N5936	1N3800	1N5363	1N2989	1N2823	1N3324
33	1N4121	1N5546	1N973	1N5257	1N4752	1N3032	1N5937	1N3801	1N5364	1N2990	1N2824	1N3325
36	1N4122	....	1N974	1N5258	1N4753	1N3033	1N5938	1N3802	1N5365	1N2991	1N2825	1N3326
39	1N4123	....	1N975	1N5259	1N4754	1N3034	1N5939	1N3803	1N5366	1N2992	1N2826	1N3327
43	1N4124	....	1N976	1N5260	1N4755	1N3035	1N5940	1N3804	1N5367	1N2993	1N2827	1N3328
47	1N4125	....	1N977	1N5261	1N4756	1N3036	1N5941	1N3805	1N5368	1N2996	1N2829	1N3330
51	1N4126	....	1N978	1N5262	1N4757	1N3037	1N5942	1N3806	1N5369	1N2997	1N2831	1N3332
56	1N4127	....	1N979	1N5263	1N4758	1N3038	1N5943	1N3807	1N5370	1N2999	1N2832	1N3334
60	1N4128	....	....	1N5264	....	....	....	....	1N5371	....	....	....
62	1N4129	....	1N980	1N5265	1N4759	1N3039	1N5944	1N3808	1N5372	1N3000	1N2833	1N3335
68	1N4130	....	1N981	1N5266	1N4760	1N3040	1N5945	1N3809	1N5373	1N3001	1N2834	1N3336
75	1N4131	....	1N982	1N5267	1N4761	1N3041	1N5946	1N3810	1N5374	1N3002	1N2835	1N3337
82	1N4132	....	1N983	1N5268	1N4762	1N3042	1N5947	1N3811	1N5375	1N3003	1N2836	1N3338
87	1N4133	....	....	1N5269	....	....	....	....	1N5376	....	....	....
91	1N4134	....	1N984	1N5270	1N4763	1N3043	1N5948	1N3812	1N5377	1N3004	1N2837	1N3339
100	1N4135	....	1N985	1N5271	1N4764	1N3044	1N5949	1N3813	1N5378	1N3005	1N2838	1N3340
110	....	....	1N986	1N5272	1M110ZS10	1N3045	1N5950	1N3814	1N5379	1N3007	1N2840	1N3342
120	....	....	1N987	1N5273	1M120ZS10	1N3046	1N5951	1N3815	1N5380	1N3008	1N2841	1N3343
130	....	....	1N988	1N5274	1M130ZS10	1N3047	1N5952	1N3816	1N5381	1N3009	1N2842	1N3344
140	....	....	....	1N5275	....	....	....	....	....	....	....	....
150	....	....	1N989	1N5276	1M150ZS10	1N3048	1N5953	1N3817	1N5383	1N3011	1N2843	1N3346
160	....	....	1N990	1N5277	1M160ZS10	1N3049	1N5954	1N3818	1N5384	1N3012	1N2844	1N3347
170	....	....	....	1N5278	1M170ZS10	....	....	....	1N5385	....	....	....
180	....	....	1N991	1N5279	1M180ZS10	1N3050	1N5955	1N3819	1N5386	1N3014	1N2845	1N3349
200	....	....	1N992	1N5281	1M200ZS10	1N3051	1N5956	1N3820	1N5388	1N3015	1N2846	1N3350

Motorola Type	Tol. ±%	Net Ea., Lots	
		1–9	10–49
1N746–1N759	10	$ 0.83	$ 0.79
1N746A–1N759A	5	.83	.79
1N957A–1N978A	10	.83	.79
1N979A–1N986A	10	1.16	1.10
1N987A–1N992A	10	2.23	2.13
1N957B–1N978B	5	.83	.79
1N979A–1N986A	5	1.16	1.10
1N987A–1N992A	5	2.23	2.13
1N2804A–1N2838A	10	11.22	10.68
1N2839A–1N2846A	10	16.57	15.78
1N2804B–1N2838B	5	15.62	14.87
1N2839B–1N2846B	5	26.32	25.07
1N2970A–1N3012A	10	8.58	8.17
1N3013A–1N3015A	10	13.20	12.57
1N2970B–1N3012B	5	10.70	10.19
1N3013B–1N3015B	5	20.16	19.20
1N3016A–1N3044A	10	4.69	4.47
1N3045A–1N3051A	10	4.77	4.54
1N3016B–1N3044B	5	5.43	5.17
1N3045B–1N3051B	5	6.82	6.49
1N3305A–1N3340A	10	11.22	10.68
1N3341A–1N3350A	10	16.57	15.78
1N3305B–1N3340B	5	15.62	14.87
1N3341B–1N3350B	5	26.32	25.07
1N3785A–1N3813A	10	9.72	9.26

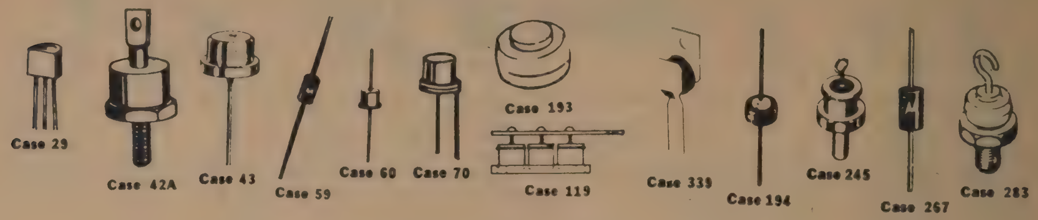
Motorola Type	Tol. ±%	Net Ea., Lots	
		1–9	10–49
1N3814A–1N3816A	10	$ 11.82	$ 11.26
1N3817A–1N3820A	10	12.92	12.30
1N3785B–1N3813B	5	12.74	12.14
1N3814B–1N3816B	5	15.31	14.58
1N3817B–1N3820B	5	16.13	15.36
1N3821–1N3830	10	3.08	2.93
1N3821A–1N3830A	5	3.89	3.70
1N3993–1N4000	10	8.29	7.89
1N3993A–1N4000A	5	11.29	10.75
1N4099–1N4135	5	1.94	1.85
1N4370–1N4372	10	1.46	1.39
1N4370A-1N4372A	5	1.46	1.39
1N4549A–1N4564A	10	11.73	11.17
1N4549B–1N4564B	5	16.86	16.06
1N4728–1N4752	10	1.23	1.17
1N4753–1N4757	10	1.31	1.25
1N4758–1N4764	10	1.46	1.39
1N4728A–1N4752A	5	1.23	1.17
1N4753A–1N4757A	5	1.46	1.39
1N4758A–1N4764A	5	1.62	1.54
1N5221–1N5225	10	.92	.88
1N5226–1N5261	10	.65	.62
1N5262–1N5270	10	1.23	1.17
1N5271–1N5281	10	1.62	1.54
1N5221A–1N5225A	10	1.23	1.17

Motorola Type	Tol. ±%	Net Ea., Lots	
		1–9	10–49
1N5226A–1N5261A	10	$ 0.65	$ 0.62
1N5262A–1N5270A	10	1.46	1.39
1N5271A–1N5281A	10	1.85	1.76
1N5221B–1N5225B	5	1.43	1.36
1N5226B–1N5261B	5	.65	.62
1N5262B–1N5270B	5	1.74	1.66
1N5271B–1N5281B	5	2.22	2.11
1N5333A–1N5377A	10	2.57	2.44
1N5378A–1N5388A	10	2.93	2.79
1N5333B–1N5377B	5	2.64	2.51
1N5378B–1N5388B	5	3.08	2.93
1N5518A–1N5539A	10	2.93	2.79
1N5518B–1N5539B	5	4.30	4.09
1N5540A–1N5546A	10	4.33	4.12
1N5540B–1N5546B	5	6.16	5.87
1N5913A–1N5925A	10	3.96	3.77
1N5926A–1N5948A	10	3.52	3.35
1N5949A–1N5956A	10	3.81	3.63
1N5913B–1N5925B	5	5.13	4.89
1N5926B–1N5948B	5	4.11	3.91
1N5949B–1N5956B	5	5.43	5.17
1M110ZS10–1M200ZS10	10	3.31	3.16
1M110ZS5–1M200ZS5	5	3.31	3.16

MOTOROLA
Semiconductors

Silicon Rectifiers

GENERAL PURPOSE RECTIFIERS



Listed in order of increasing I_O.

Motorola Type	Case	I_O Amps	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots 1-9	Net Each, Lots 10-49
1N4001	59	1.0	50	30	$0.39	$0.37
1N4002	59	1.0	100	30	.40	.38
1N4003	59	1.0	200	30	.42	.40
1N4004	59	1.0	400	30	.46	.44
1N4005	59	1.0	600	30	.54	.51
1N4006	59	1.0	800	30	.68	.65
1N4007	59	1.0	1000	30	.85	.81
1N5391	59	1.5	50	50	.37	.35
1N5392	59	1.5	100	50	.40	.38
1N5393	59	1.5	200	50	.46	.44
1N5395	59	1.5	400	50	.55	.53
1N5397	59	1.5	600	50	.71	.67
1N5398	59	1.5	800	50	.86	.82
1N5399	59	1.5	1000	50	1.17	1.11
MR5059	59	1.5	200	50	.35	.34
MR5060	59	1.5	400	50	.38	.36
MR5061	59	1.5	600	50	.41	.39
1N4719, R	60	3.0	50	300	1.70	1.62
1N4720, R	60	3.0	100	300	1.86	1.77
1N4721, R	60	3.0	200	300	2.01	1.92
1N4722, R	60	3.0	400	300	2.18	2.08
1N4723, R	60	3.0	600	300	2.36	2.25
1N4724, R	60	3.0	800	300	3.51	3.34
1N4725, R	60	3.0	1000	300	5.31	5.05
1N4997, R	70	3.0	50	300	1.70	1.62
1N4998, R	70	3.0	100	300	1.86	1.77
1N4999, R	70	3.0	200	300	2.01	1.92
1N5000, R	70	3.0	400	300	2.18	2.08
1N5001, R	70	3.0	600	300	2.36	2.25
1N5002, R	70	3.0	800	300	3.51	3.34
1N5003, R	70	3.0	1000	300	5.31	5.05
MR500	267	3.0	50	100	.32	.31
MR501	267	3.0	100	100	.38	.36
MR502	267	3.0	200	100	.44	.42
MR504	267	3.0	400	100	.48	.46
MR506	267	3.0	600	100	.59	.56
MR508	267	3.0	800	100	.70	.67
MR510	267	3.0	1000	100	.97	.92
1N5400	267	3.0	50	200	.43	.41
1N5401	267	3.0	100	200	.51	.49
1N5402	267	3.0	200	200	.56	.53
1N5404	267	3.0	400	200	.65	.61
1N5406	267	3.0	600	200	.88	.84
MR750	194	6.0	50	400	.94	.89
MR751	194	6.0	100	400	1.17	1.12
MR752	194	6.0	200	400	1.23	1.17
MR754	194	6.0	400	400	1.38	1.31
MR756	194	6.0	600	400	2.32	2.21
MR758	194	6.0	800	400	2.79	2.65
MR760	194	6.0	1000	400	3.37	3.21
1N1199C, RC	245	12.0	50	300	1.15	1.09
1N1200C, RC	245	12.0	100	300	1.27	1.21
1N1202C, RC	245	12.0	200	300	1.40	1.33
1N1204C, RC	245	12.0	400	300	1.52	1.45
1N1206C, RC	245	12.0	600	300	2.17	2.06
MR1120, R	245	12.0	50	300	1.70	1.62
MR1121, R	245	12.0	100	300	$1.96	$1.86
MR1122, R	245	12.0	200	300	2.10	2.00
MR1124, R	245	12.0	400	300	2.60	2.47
MR1126, R	245	12.0	600	300	4.61	4.39
MR1128, R	245	12.0	800	300	8.76	8.34
MR1130, R	245	12.0	1000	300	12.42	11.82
1N3208, R	42A	15	50	250	1.83	1.74
1N3209, R	42A	15	100	250	2.23	2.13
1N3210, R	42A	15	200	250	2.86	2.73
1N3212, R	42A	15	400	250	4.06	3.87
1N3214, R	42A	15	600	250	5.84	5.56
MR2000S, SR	283	20	50	400	1.50	1.43
MR2001S, SR	283	20	100	400	1.58	1.51
MR2002S, SR	283	20	200	400	1.67	1.59
MR2004S, SR	283	20	400	400	1.76	1.68
MR2006S, SR	283	20	600	400	2.64	2.51
MR2008S, SR	283	20	800	400	3.52	3.35
MR2010S, SR	283	20	1000	400	4.40	4.19
MR2400	339	24	50	400	1.66	1.58
MR2401	339	24	100	400	1.79	1.70
MR2402	339	24	200	400	1.91	1.82
MR2404	339	24	400	400	2.04	1.94
MR2406	339	24	600	400	2.54	2.42
MR2500	193	25	50	400	.68	.64
MR2501	193	25	100	400	.73	.70
MR2502	193	25	200	400	.79	.75
MR2504	193	25	400	400	.88	.84
MR2506	193	25	600	400	1.06	1.01
MR2508	193	25	800	400	1.26	1.20
MR2510	193	25	1000	400	1.91	1.82
MR328, R	43	25	600	300	4.14	3.94
MR330, R	43	25	800	300	4.77	4.54
MR331, R	43	25	1000	300	7.43	7.08
1N1183, R	42A	35	50	400	2.57	2.45
1N1183 A, RA	42A	40	50	800	2.70	2.57
1N1184, R	42A	35	100	400	3.02	2.87
1N1184A, RA	42A	40	100	800	3.14	2.99
1N1186, R	42A	35	200	400	4.04	3.84
1N1186A, RA	42A	40	200	800	4.47	4.26
1N1190, R	42A	35	400	400	8.37	7.97
1N1190A, RA	42A	40	400	800	8.88	8.46
MR5005, R	43	50	50	600	3.49	3.33
MR5010, R	43	50	100	600	3.77	3.59
MR5020, R	43	50	200	600	4.05	3.86
MR5040, R	43	50	400	600	5.31	5.05

MULTI-CELL RECTIFIER DIODES

Motorola Type	Case	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots 1-9	Net Each, Lots 10-49
50 AMP RATING					
MR1205FL, R	100	300	800	$21.34	$20.32
MR1209FL, R	100	600	800	24.05	22.90
100 AMP RATING					
MR1215SL, R	167	300	2000	$24.05	$22.90
MR1219SL, R	167	600	2000	26.69	25.42
MR1815SL, R	189	300	2000	21.86	20.82
MR1819SL, R	189	600	2000	27.51	26.20

Motorola Type	Case	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots of 1-9	Net Each, Lots of 10-49
450 AMP RATING					
MR1245FL, R	128	300	8000	$104.11	$ 99.15
MR1249FL, R	128	600	8000	109.98	104.74
MR1245SL, R	135	300	8000	105.58	100.55
MR1249SL, R	135	600	8000	112.91	107.53
700 AMP RATING					
MR1265FL, R	136	300	12000	$134.90	$128.48
MR1269FL, R	136	600	12000	146.63	139.65

MOTOROLA
Semiconductors

Silicon Rectifiers

FAST RECOVERY RECTIFIERS

Motorola Type	Case	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots	
				1-9	10-49
1 AMP RATING					
1N4933	59	50	30	$0.42	$0.40
1N4934	59	100	30	.46	.44
1N4935	59	200	30	.53	.51
1N4936	59	400	30	.57	.55
1N4937	59	600	30	.64	.61
MR810	59	50	30	.46	.43
MR811	59	100	30	.48	.46
MR812	59	200	30	.51	.49
MR814	59	400	30	.57	.55
MR816	59	600	30	.59	.56
MR817	59	800	30	.62	.59
MR818	59	1000	30	.78	.74
3 AMP RATING					
MR830, R	60	50	100	$2.51	$2.39
MR831, R	60	100	100	2.79	2.66
MR832, R	60	200	100	3.35	3.19
MR834, R	60	400	100	5.03	4.79
MR836, R	60	600	100	6.15	5.85
MR800	70	50	100	2.51	2.39
MR801	70	100	100	2.79	2.66
MR802	70	200	100	3.35	3.19
MR804	70	400	100	5.03	4.79
MR806	70	600	100	6.15	5.85
MR850	267	50	100	.81	.77
MR851	267	100	100	.91	.87
MR852	267	200	100	1.01	.96
MR854	267	400	100	1.23	1.17
MR856	267	600	100	1.44	1.37
MR910	267	50	100	.78	.74
MR911	267	100	100	.91	.87
MR912	267	200	100	1.00	.95
MR914	267	400	100	1.16	1.10
MR916	267	600	100	1.36	1.30
MR917	267	800	100	1.85	1.76
MR918	267	1000	100	2.38	2.26
5 AMP RATING					
MR820	194	50	300	$1.69	$1.61
MR821	194	100	300	1.75	1.66
MR822	194	200	300	1.95	1.86
MR824	194	400	300	2.41	2.29
MR826	194	600	300	2.80	2.67
6 AMP RATING					
1N3879, R	245	50	150	$2.79	$2.65
1N3879A, RA	245	50	150	2.20	2.10
1N3880, R	245	100	150	3.23	3.07
1N3880A, RA	245	100	150	2.49	2.37
1N3881, R	245	200	150	3.81	3.63
1N3881A, RA	245	200	150	2.79	2.65
1N3883, R	245	400	150	4.99	4.75
1N3883A, RA	245	400	150	3.96	3.77
MR1366, R	56	600	150	6.60	6.28
12 AMP RATING					
N3889, R	245	50	200	$3.37	$3.21
N3889A, RA	245	50	200	2.49	2.37
N3890, R	245	100	200	3.96	3.77
1N3890A, RA	245	100	200	2.79	2.65
1N3891, R	245	200	200	4.55	4.33
1N3891A, RA	245	200	200	3.08	2.93
1N3893, R	245	400	200	6.31	6.01
1N3893A, RA	245	400	200	4.25	4.05
MR1376, R	245	600	200	8.51	8.10
20 AMP RATING					
1N3899, R	42 A	50	250	$4.84	$4.61
1N3900, R	42 A	100	250	5.06	4.82
1N3901, R	42 A	200	250	5.65	5.38
1N3903, R	257	400	250	6.67	6.36
MR1386, R	257	600	250	7.48	7.12
24 AMP RATING					
MR2400	339	50	300	$1.66	$1.58
MR2401	339	100	300	1.79	1.70
MR2402	339	200	300	1.91	1.82
MR2404	339	400	300	2.04	1.94
MR2406	339	600	300	2.54	2.42
30 AMP RATING					
R710X, A	11	50	300	$5.13	$4.89
R711X, A	11	100	300	5.43	5.17
R712X, A	11	200	300	5.72	5.45
R714X, A	11	400	300	6.16	5.87
1N3909, R	257	50	300	5.21	4.96
1N3910, R	257	100	300	5.50	5.24
1N3911, R	257	200	300	6.01	5.73
1N3913, R	257	400	300	7.11	6.77
MR1396, R	257	600	300	7.92	7.54
40 AMP RATING					
MR860, R	42 A	50	350	$ 5.71	$ 5.44
MR861, R	42 A	100	350	6.36	6.05
MR862, R	42 A	200	350	6.98	6.65
MR864, R	42 A	400	350	10.03	9.55
MR866, R	42 A	600	350	13.34	12.70

FAST RECOVERY RECTIFIERS (Cont.)

Motorola Type	Case	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots	
				1-9	10-49
50 AMP RATING					
MR870, R	42 A	50	400	$ 6.22	$ 5.92
MR871, R	42 A	100	400	6.84	6.52
MR872, R	42 A	200	400	7.49	7.13
MR874, R	42 A	400	400	10.80	10.28
MR876, R	42 A	600	400	14.22	13.54

RECTIFIER BRIDGES

Motorola Type	Case	V_{RRM} Volts	I_{FSM} Amps	Net Each, Lots	
				1-9	10-49
1 AMP RATING					
MDA920A2	109	50	45	$3.14	$2.99
MDA920A3	109	100	45	3.65	3.48
MDA920A4	109	200	45	4.34	4.13
MDA920A6	109	400	45	4.63	4.41
MDA920A7	109	600	45	6.01	5.73
MDA920A8	109	800	45	6.63	6.31
MDA920A9	109	1000	45	7.90	7.53
MDA100A	312	50	45	2.35	2.23
MDA101A	312	100	45	2.54	2.42
MDA102A	312	200	45	2.71	2.58
MDA104A	312	400	45	2.90	2.77
MDA106A	312	600	45	3.26	3.10
MDA108A	312	800	45	3.81	3.63
MDA110A	312	1000	45	4.34	4.13
3N246	312	50	45	2.35	2.23
3N247	312	100	45	2.54	2.42
3N248	312	200	45	2.71	2.58
3N249	312	400	45	2.90	2.77
3N250	312	600	45	3.26	3.10
3N251	312	800	45	3.81	3.63
3N252	312	1000	45	4.34	4.13
2 AMP RATING					
MDA200	312	50	60	$2.54	$2.42
MDA201	312	100	60	2.71	2.58
MDA202	312	200	60	2.90	2.77
MDA204	312	400	60	3.07	2.92
MDA206	312	600	60	3.42	3.25
MDA208	312	800	60	4.16	3.97
MDA210	312	1000	60	4.69	4.47
3N253	312	50	60	2.54	2.42
3N254	312	100	60	2.71	2.58
3N255	312	200	60	2.90	2.77
3N256	312	400	60	3.07	2.92
3N257	312	600	60	3.42	3.25
3N258	312	800	60	4.16	3.97
3N259	312	1000	60	4.69	4.47
4 AMP RATING					
MDA970A1	117	50	100	$5.29	$5.04
MDA970A2	117	100	100	6.04	5.75
MDA970A3	117	200	100	6.45	6.15
MDA970A5	117	400	100	8.05	7.67
8 AMP RATING					
MDA800	321	50	400	$ 8.21	$ 7.82
MDA801	321	100	400	9.09	8.66
MDA802	321	200	400	9.97	9.50
MDA804	321	400	400	11.73	11.17
MDA806	321	600	400	14.66	13.97
12 AMP RATING					
MDA980-1	309A	50	300	$ 4.03	$ 3.84
MDA980-2	309A	100	300	4.47	4.26
MDA980-3	309A	200	300	4.99	4.75
MDA980-5	309A	400	300	5.06	4.82
MDA980-6	309A	600	300	6.97	6.63
MDA1200	321	50	400	8.95	8.52
MDA1201	321	100	400	9.33	8.88
MDA1202	321	200	400	10.27	9.78
MDA1204	321	400	400	11.58	11.03
MDA1206	321	600	400	13.46	12.82
25 AMP RATING					
MDA2500	309A	50	400	$ 4.06	$3.87
MDA2550	309A	50	400	2.93	2.79
MDA2501	309A	100	400	4.19	3.99
MDA2551	309A	100	400	3.37	3.21
MDA2502	309A	200	400	4.32	4.11
MDA2504	309A	400	400	4.58	4.36
MDA2506	309A	600	400	6.10	5.81
35 AMP RATING					
MDA3500	309A	50	400	$ 4.46	$ 4.24
MDA3550	309A	50	400	4.03	3.84
MDA3501	309A	100	400	4.58	4.36
MDA3551	309A	100	400	4.47	4.26
MDA3502	309A	200	400	4.71	4.48
MDA3504	309A	400	400	4.83	4.60
MDA3506	309A	600	400	6.62	6.30
MDA3508	309A	800	400	7.88	7.50
MDA3510	309A	1000	400	10.06	9.58

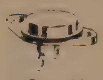
MOTOROLA
Semiconductors

Silicon Controlled Rectifiers (Thyristors)

Case 22, TO-52

Case 29

Case 54


Case 61

Case 63

Case 77

Case 79

Case 86

Case 87L

Case 263

Case 310

Case 311

Case 174

Case 175

Case 90

Case 221

Case 182

SILICON CONTROLLED RECTIFIERS—IN PLASTIC CASE

Listed in order of on-state (rms) current.

Motorola Type	Case	V_{FOM} V_{ROM} V	I_T rms A	At 25°C		Net Ea., Lots	
				V_{GT} V	I_{GT} mA	1-9	10-49
MCR101	29	15	0.8	0.8	0.2	$0.50	$0.48
MCR102	29	30	0.8	0.8	0.2	.75	.71
MCR103	29	60	0.8	0.8	0.2	.79	.71
MCR104	29	100	0.8	0.8	0.2	.90	.85
MCR115	29	150	0.8	0.8	0.2	.97	.92
MCR120	29	200	0.8	0.8	0.2	1.01	.96
MCR100-5	29	300	0.8	0.8	0.2	.57	.55
MCR100-6	29	400	0.8	0.8	0.2	.72	.69
MCR100-7	29	500	0.8	0.8	0.2	.88	.84
MCR100-8	29	600	0.8	0.8	0.2	1.09	1.03
2N5060	29	30	0.8	0.8	0.2	.59	.56
2N5061	29	60	0.8	0.8	0.2	.60	.57
2N5062	29	100	0.8	0.8	0.2	.69	.66
2N5063	29	150	0.8	0.8	0.2	.73	.70
2N5064	29	200	0.8	0.8	0.2	.84	.80
MCR606-2	29	50	4.0	0.8	0.2	.47	.45
MCR606-3	29	100	4.0	0.8	0.2	.53	.50
MCR606-4	29	200	4.0	0.8	0.2	.57	.55
MCR606-5	29	300	4.0	0.8	0.2	.63	.60
MCR606-6	29	400	4.0	0.8	0.2	.76	.73
MCR606-7	29	500	4.0	0.8	0.2	.95	.91
MCR606-8	29	600	4.0	0.8	0.2	1.16	1.10
2N6236	77	30	4.0	0.8	0.2	.94	.89
2N6237	77	50	4.0	0.8	0.2	1.01	.96
2N6238	77	100	4.0	0.8	0.2	1.03	.98
2N6239	77	200	4.0	0.8	0.2	1.16	1.10
2N6240	77	400	4.0	0.8	0.2	1.61	1.54
2N6241	77	600	4.0	0.8	0.2	2.74	2.61
MCR106-1	77	30	4.0	1.0	0.5	.94	.89
MCR106-2	77	60	4.0	1.0	0.5	1.01	.96
MCR106-3	77	100	4.0	1.0	0.5	1.03	.98
MCR106-4	77	200	4.0	1.0	0.5	1.16	1.10
MCR106-5	77	300	4.0	1.0	0.5	1.41	1.34
MCR106-6	77	400	4.0	1.0	0.5	1.61	1.54
MCR106-7	77	500	4.0	1.0	0.5	2.64	2.51
MCR106-8	77	600	4.0	1.0	0.5	2.74	2.61
C106Y1	77	25	4.0	0.8	0.2	.53	.50
C106F1	77	50	4.0	0.8	0.2	.54	.52
C106A1	77	100	4.0	0.8	0.2	.57	.55
C106B1	77	200	4.0	0.8	0.2	.60	.57
C106C1	77	300	4.0	0.8	0.2	.68	.64
C106D1	77	400	4.0	0.8	0.2	.82	.78
C106E1	77	500	4.0	0.8	0.2	1.03	.98
C106M1	77	600	4.0	0.8	0.2	1.23	1.17
MCR3000–1	90	25	8.0	1.5	30.0	2.24	2.14
2N4441	90	50	8.0	1.5	30.0	2.27	2.17
MCR3000–3	90	100	8.0	1.5	30.0	2.35	2.23
2N4442	90	200	8.0	1.5	30.0	2.45	2.33
MCR3000-5	90	300	8.0	1.5	30.0	2.67	2.54
2N4443	90	400	8.0	1.5	30.0	3.34	3.18
MCR3000-7	90	500	8.0	1.5	30.0	3.83	3.65
2N4444	90	600	8.0	1.5	30.0	5.25	5.00
MCR3000-9	90	700	8.0	1.5	30.0	5.78	5.50
MCR3000-10	90	800	8.0	1.5	30.0	6.97	6.63
C122F1	221	50	8.0	1.5	25.0	$1.19	$1.13
C122A1	221	100	8.0	1.5	25.0	1.31	1.24
C122B1	221	200	8.0	1.5	25.0	1.41	1.34
C122C1	221	300	8.0	1.5	25.0	1.77	1.69
C122D1	221	400	8.0	1.5	25.0	1.99	1.90
C122E1	221	500	8.0	1.5	25.0	2.35	2.23
C122M1	221	600	8.0	1.5	25.0	2.93	2.79
S2800F	221	50	8.0	1.5	25.0	1.19	1.13
S2800A	221	100	8.0	1.5	25.0	1.31	1.24
S2800B	221	200	8.0	1.5	25.0	1.42	1.36
S2800C	221	300	8.0	1.5	25.0	1.69	1.61
S2800D	221	400	8.0	1.5	25.0	2.01	1.91
S2800E	221	500	8.0	1.5	25.0	2.36	2.25
S2800M	221	600	8.0	1.5	25.0	3.02	2.88
S2800S	221	700	8.0	1.5	25.0	5.02	4.78
MCR72–1	221	25	8.0	1.5	0.2	1.16	1.10
MCR72–2	221	50	8.0	1.5	0.2	1.19	1.13
MCR72–3	221	100	8.0	1.5	0.2	1.36	1.30
MCR72–4	221	200	8.0	1.5	0.2	1.54	1.47
MCR72–5	221	300	8.0	1.5	0.2	1.75	1.66
MCR72–6	221	400	8.0	1.5	0.2	1.89	1.80
MCR72–7	221	500	8.0	1.5	0.2	2.38	2.26
MCR72–8	221	600	8.0	1.5	0.2	2.98	2.84
2N6394	221	50	12.0	1.5	30.0	1.83	1.75
2N6395	221	100	12.0	1.5	30.0	1.91	1.82
2N6396	221	200	12.0	1.5	30.0	1.98	1.89
2N6397	221	400	12.0	1.5	30.0	2.64	2.51
2N6398	221	600	12.0	1.5	30.0	4.12	3.92
2N6399	221	800	12.0	1.5	30.0	5.79	5.52
MCR220–5	221	300	12.0	1.5	30.0	2.42	2.31
MCR220–7	221	500	12.0	1.5	30.0	3.58	3.41
MCR220–9	221	700	12.0	1.5	30.0	5.06	4.82
2N6400	221	50	16.0	1.5	30.0	2.35	2.23
2N6401	221	100	16.0	1.5	30.0	2.64	2.51
2N6402	221	200	16.0	1.5	30.0	2.79	2.65
2N6403	221	400	16.0	1.5	30.0	3.77	3.59
2N6404	221	600	16.0	1.5	30.0	5.72	5.45
2N6405	221	800	16.0	1.5	30.0	8.71	8.30
MCR221–5	221	300	16.0	1.5	30.0	3.34	3.18
MCR221–7	221	500	16.0	1.5	30.0	4.79	4.57
MCR221–9	221	700	16.0	1.5	30.0	7.26	6.91
2N6405	221	800	16.0	1.5	30.0	8.71	8.30
2N6504	221	50	25.0	1.5	40.0	2.89	2.75
2N6505	221	100	25.0	1.5	40.0	3.67	3.49
2N6506	221	200	25.0	1.5	40.0	4.94	4.71
2N6507	221	400	25.0	1.5	40.0	5.44	5.18
2N6508	221	600	25.0	1.5	40.0	6.99	6.66
2N6509	221	800	25.0	1.5	40.0	10.88	10.36
MCR525–4	342	200	25.0	1.5	40.0	3.81	3.63
MCR525–5	342	300	25.0	1.5	40.0	3.93	3.74
MCR525–6	342	400	25.0	1.5	40.0	4.00	3.81
MCR525–7	342	500	25.0	1.5	40.0	4.18	3.98
MCR525–8	342	600	25.0	1.5	40.0	5.06	4.82
MCR525–9	342	700	25.0	1.5	40.0	6.55	6.24

TRIGGER DEVICES

Ideal SCR or triac complements. Plastic case except Case 22, metal.

SILICON BIDIRECTIONAL SWITCH—SBS

Motorola Type	Case	V_S VDC	Maximum		Net Ea., Lots	
			I_S μADC	I_H mADC	1-9	10-49
MBS4991	29	6.0–10	500	1.5	$0.82	$0.78
MBS4992	29	7.5–9	120	0.5	1.77	1.69

LARGER QUANTITY PRICES AVAILABLE ON REQUEST.

BILATERAL TRIGGER DIACS (CASE 182)

Specifications given are for both directions.

Motorola Type	Nom. V_S V	Max. I_S μA	Min. μV V	Max. I_B μA	Net Each, Lots of	
					1-9	10-49
1N5758	20 ± 4.0	100	5.0	10	$0.69	$0.66
1N5758A	20 ± 2.0	25	5.0	10	.76	.73
1N5759	24 ± 4.0	100	5.0	10	1.25	1.19
1N5759A	24 ± 2.0	25	5.0	10	1.35	1.29
1N5760	28 ± 4.0	100	7.0	10	.69	.66
1N5760A	28 ± 2.0	25	7.0	10	1.25	1.19
1N5761	32 ± 4.0	100	7.0	10	.69	.66
1N5761A	32 ± 2.0	25	7.0	10	.76	.73
1N5762	36 ± 4.0	100	7.0	10	.69	.66
1N5762A	36 ± 2.0	25	7.0	10	1.25	1.19

MOTOROLA Semiconductors

Silicon Controlled Rectifiers (Thyristors)

SILICON CONTROLLED RECTIFIERS (SCR's)—IN METAL CASE

Listed in order of on-state (rms) current.

Motorola Type	Case	V_{FOM} V_{ROM} V	I_T rms A	AT 25°C		Net Ea., Lots	
				V_{GT} V	I_{GT} mA	1-9	10-49
MCR201	22	15	0.5	1.0	0.2	$ 1.17	$ 1.12
MCR202	22	30	0.5	1.0	0.2	1.29	1.23
MCR203	22	60	0.5	1.0	0.2	1.51	1.44
MCR204	22	100	0.5	1.0	0.2	1.61	1.54
MCR205	22	150	0.5	1.0	0.2	1.72	1.63
MCR206	22	200	0.5	1.0	0.2	1.83	1.75
2N1595	79	50	1.6	3.0	10	1.94	1.84
2N1596	79	100	1.6	3.0	10	2.70	2.57
2N1597	79	200	1.6	3.0	10	3.71	3.53
2N1598	79	300	1.6	3.0	10	4.36	4.15
2N1599	79	400	1.6	3.0	10	10.28	9.79
2N2322	79	25	1.6	0.8	0.1	2.52	2.40
2N2323	79	50	1.6	0.8	0.1	3.08	2.93
2N2324	79	100	1.6	0.8	0.1	4.31	4.11
2N2325	79	150	1.6	0.8	0.1	5.65	5.38
2N2326	79	200	1.6	0.8	0.1	7.22	6.87
2N2327	79	250	1.6	0.8	0.1	10.10	9.62
2N2328	79	300	1.6	0.8	0.1	11.13	10.60
2N2329	79	400	1.6	0.8	0.1	14.66	13.97
2N4212	79	25	1.6	0.8	0.1	2.30	2.19
2N4213	79	50	1.6	0.8	0.1	2.76	2.63
2N4214	79	100	1.6	0.8	0.1	3.23	3.07
2N4215	79	150	1.6	0.8	0.1	4.25	4.05
2N4216	79	200	1.6	0.8	0.1	5.59	5.32
2N4217	79	250	1.6	0.8	0.1	6.31	6.01
2N4218	79	300	1.6	0.8	0.1	9.21	8.77
2N4219	79	400	1.6	0.8	0.1	13.55	12.90
MCR1906-1	79	25	1.6	1.0	1.0	1.98	1.89
MCR1906-2	79	50	1.6	1.0	1.0	2.10	2.00
MCR1906-3	79	100	1.6	1.0	1.0	2.39	2.28
MCR1906-4	79	200	1.6	1.0	1.0	2.60	2.47
MCR1906-5	79	300	1.6	1.0	1.0	5.48	5.22
MCR1906-6	79	400	1.6	1.0	1.0	8.18	7.79
2N4167	86	25	8.0	1.5	30	6.98	6.65
2N4168	86	50	8.0	1.5	30	7.08	6.75
2N4169	86	100	8.0	1.5	30	7.38	7.03
2N4170	86	200	8.0	1.5	30	7.57	7.21
2N4171	86	300	8.0	1.5	30	7.85	7.47
2N4172	86	400	8.0	1.5	30	8.33	7.93
2N4173	86	500	8.0	1.5	30	9.46	9.01
2N4174	86	600	8.0	1.5	30	11.42	10.88
2N4183	87L	25	8.0	1.5	30	6.95	6.62
2N4184	87L	50	8.0	1.5	30	7.04	6.70
2N4185	87L	100	8.0	1.5	30	7.30	6.95
2N4186	87L	200	8.0	1.5	30	7.52	7.16
2N4187	87L	300	8.0	1.5	30	7.80	7.43
2N4188	87L	400	8.0	1.5	30	8.31	7.92
2N4189	87L	500	8.0	1.5	30	9.44	8.99
2N4190	87L	600	8.0	1.5	30	11.38	10.84
2N3668	54	100	12.5	2.0	40	5.71	5.43
2N3669	54	200	12.5	2.0	40	7.55	7.19
2N3670	54	400	12.5	2.0	40	11.13	10.60
2N4103	54	600	12.5	2.0	40	15.70	14.96
2N1842	263	25	16	2.0	80	4.25	4.05
2N1843	263	50	16	2.0	80	4.40	4.19
2N1844	263	100	16	2.0	80	4.77	4.54
2N1845	263	150	16	2.0	80	5.56	5.29
2N1846	263	200	16	2.0	80	6.47	6.16
2N1847	263	250	16	2.0	80	7.41	7.05
2N1848	263	300	16	2.0	80	8.01	7.63
2N1849	263	400	16	2.0	80	9.52	9.06
2N1850	263	500	16	2.0	80	11.01	10.49
2N1842A	263	25	16	2.0	80	4.33	4.12
2N1843A	263	50	16	2.0	80	4.47	4.26
2N1844A	263	100	16	2.0	80	4.84	4.61
2N1845A	263	150	16	2.0	80	5.63	5.36
2N1846A	263	200	16	2.0	80	6.54	6.23
2N1847A	263	250	16	2.0	80	7.48	7.12
2N1848A	263	300	16	2.0	80	8.08	7.69
2N1849A	263	400	16	2.0	80	9.59	9.13
2N1850A	263	500	16	2.0	80	11.09	10.56
2N5164	310	50	20	1.5	40	3.81	3.63
2N5165	310	200	20	1.5	40	4.18	3.98
2N5166	310	400	20	1.5	40	5.50	5.24
2N5167	310	600	20	1.5	40	7.26	6.91
S6200A	310	100	20.0	1.5	40.0	3.37	3.21
S6200B	310	200	20.0	1.5	40.0	4.74	4.51
S6200D	310	400	20.0	1.5	40.0	6.34	6.03
S6200M	310	600	20.0	1.5	40.0	9.05	8.62
2N5168	263	50	20	1.5	40	4.31	4.11
2N5169	263	200	20	1.5	40	4.74	4.51
2N5170	263	400	20	1.5	40	5.98	5.70
2N5171	263	600	20	1.5	40	7.74	7.37
S6210A	263	100	20.0	1.5	40.0	3.87	3.69
S6210B	263	200	20.0	1.5	40.0	5.29	5.04
S6210D	263	400	20.0	1.5	40.0	6.91	6.58
S6210M	263	600	20.0	1.5	40.0	9.24	8.80
2N6167	311	100	20	1.5	40	5.62	5.35
2N6168	311	200	20	1.5	40	5.81	5.53
2N6169	311	400	20	1.5	40	7.67	7.30
2N6170	311	600	20	1.5	40	9.44	8.99
S6220A	311	100	20.0	1.5	40.0	4.34	4.13
S6220B	311	200	20.0	1.5	40.0	5.79	5.52
S6220D	311	400	20.0	1.5	40.0	7.41	7.05
S6220M	311	600	20.0	1.5	40.0	9.71	9.25
MCR649AP-1	54	25	20	3.5	40	$ 6.00	$ 5.71
MCR649AP-2	54	50	20	3.5	40	7.26	6.91
MCR649AP-3	54	100	20	3.5	40	9.09	8.66
MCR649AP-4	54	200	20	3.5	40	9.69	9.23
MCR649AP-5	54	300	20	3.5	40	11.73	11.17
MCR649AP-6	54	400	20	3.5	40	13.81	13.16
MCR649AP-7	54	500	20	3.5	40	16.32	15.54
MCR649AP-8	54	600	20	3.5	40	18.77	17.88
MCR649AP-9	54	700	20	3.5	40	20.60	19.62
MCR649AP-10	54	800	20	3.5	40	21.54	20.52
MCR3818-1	174	25	20	1.5	40	3.18	3.03
MCR3818-2	174	50	20	1.5	40	3.31	3.16
MCR3818-3	174	100	20	1.5	40	3.43	3.27
MCR3818-4	174	200	20	1.5	40	3.64	3.46
MCR3818-5	174	300	20	1.5	40	4.62	4.40
MCR3818-6	174	400	20	1.5	40	5.50	5.24
MCR3818-7	174	500	20	1.5	40	6.60	6.28
MCR3818-8	174	600	20	1.5	40	7.26	6.91
MCR3818-9	174	700	20	1.5	40	8.36	7.96
MCR3818-10	174	800	20	1.5	40	10.27	9.78
MCR3918-1	175	25	20	1.5	40	3.67	3.49
MCR3818-2	175	50	20	1.5	40	3.75	3.58
MCR3818-3	175	100	20	1.5	40	3.92	3.73
MCR3818-4	175	200	20	1.5	40	4.12	3.92
MCR3918-5	175	300	20	1.5	40	5.09	4.85
MCR3918-6	175	400	20	1.5	40	5.98	5.70
MCR3918-7	175	500	20	1.5	40	7.07	6.73
MCR3918-8	175	600	20	1.5	40	7.74	7.37
MCR3918-9	175	700	20	1.5	40	8.96	8.53
MCR3918-10	175	800	20	1.5	40	10.88	10.36
2N2573	61	25	25	3.5	40	6.06	5.77
2N2574	61	50	25	3.5	40	7.22	6.87
2N2575	61	100	25	3.5	40	8.80	8.38
2N2576	61	200	25	3.5	40	9.33	8.88
2N2577	61	300	25	3.5	40	11.10	10.57
2N2578	61	400	25	3.5	40	11.73	11.17
2N2579	61	500	25	3.5	40	13.71	13.06
MCR649A8	61	600	25	3.5	40	18.99	18.09
MCR649A9	61	700	25	3.5	40	21.63	20.60
MCR649A10	61	800	25	3.5	40	22.60	21.52
2N681	263	25	25	3.0	40	3.43	3.27
2N682	263	50	25	3.0	40	4.14	3.94
2N683	263	100	25	3.0	40	5.23	4.99
2N684	263	150	25	3.0	40	6.15	5.85
2N685	263	200	25	3.0	40	7.05	6.72
2N686	263	250	25	3.0	40	7.86	7.49
2N687	263	300	25	3.0	40	8.46	8.06
2N688	263	400	25	3.0	40	9.88	9.41
2N689	263	500	25	3.0	40	11.80	11.24
2N690	263	600	25	3.0	40	13.84	13.18
2N691	263	700	25	3.0	40	17.30	16.48
2N692	263	800	25	3.0	40	19.80	18.85
C230F	175	50	25.0	1.5	9.0	4.58	4.36
C230A	175	100	25.0	1.5	9.0	4.74	4.51
C230B	175	200	25.0	1.5	9.0	6.64	6.33
C230C	175	300	25.0	1.5	9.0	7.86	7.49
C230D	175	400	25.0	1.5	9.0	9.09	8.66
C230E	175	500	25.0	1.5	9.0	10.03	9.55
C230M	175	600	25.0	1.5	9.0	10.50	10.00
C230F3	175	50	25.0	1.5	9.0	6.19	5.89
C230A3	175	100	25.0	1.5	9.0	6.35	6.05
C230B3	175	200	25.0	1.5	9.0	8.26	7.86
C230C3	175	300	25.0	1.5	9.0	9.47	9.02
C230D3	175	400	25.0	1.5	9.0	10.70	10.19
C230E3	175	500	25.0	1.5	9.0	11.64	11.09
C230M3	175	600	25.0	1.5	9.0	12.11	11.54
C231F	235	50	25.0	1.5	9.0	4.81	4.58
C231A	235	100	25.0	1.5	9.0	5.28	5.03
C231B	235	200	25.0	1.5	9.0	7.19	6.84
C231C	235	300	25.0	1.5	9.0	8.27	7.88
C231D	235	400	25.0	1.5	9.0	9.35	8.91
C231E	235	500	25.0	1.5	9.0	10.46	9.96
C231M	235	600	25.0	1.5	9.0	10.91	10.39
C231F3	235	50	25.0	1.5	9.0	6.42	6.12
C231A3	235	100	25.0	1.5	9.0	6.89	6.56
C231B3	235	200	25.0	1.5	9.0	8.80	8.38
C231C3	235	300	25.0	1.5	9.0	9.88	9.41
C231D3	235	400	25.0	1.5	9.0	10.97	10.45
C231E3	235	500	25.0	1.5	9.0	12.07	11.49
C231M3	235	600	25.0	1.5	9.0	12.52	11.93
C232F	174	50	25.0	1.5	25.0	3.52	3.35
C232A	174	100	25.0	1.5	25.0	4.46	4.25
C232B	174	200	25.0	1.5	25.0	6.23	5.94
C232C	174	300	25.0	1.5	25.0	7.46	7.11
C232D	174	400	25.0	1.5	25.0	8.53	8.13
C232E	174	500	25.0	1.5	25.0	9.62	9.16
C232M	174	600	25.0	1.5	25.0	10.09	9.61
C233F	174	50	25.0	1.5	9.0	4.58	4.36
C233A	174	100	25.0	1.5	9.0	4.74	4.51
C233B	174	200	25.0	1.5	9.0	6.63	6.31
C233C	174	300	25.0	1.5	9.0	7.86	7.49
C233D	174	400	25.0	1.5	9.0	8.95	8.52
C233E	174	500	25.0	1.5	9.0	10.03	9.55
C233M	174	600	25.0	1.5	9.0	10.50	10.00

LISTING CONTINUED ON FOLLOWING PAGE

SILICON CONTROLLED RECTIFIERS (SCRs)—IN METAL CASE (CONT'D)

Listed in order of on-state (rms) current.

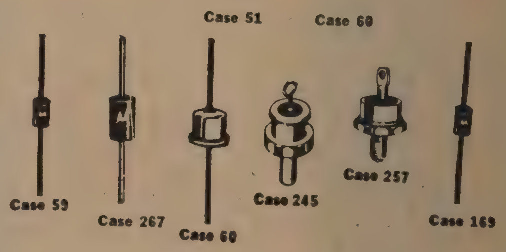
Motorola Type	Case	V_{FOM} V_{ROM} V	I_T rms A	At 25°C		Net Ea., Lots	
				V_{GT} V	I_{GT} mA	1-9	10-49
MCR3835-1	174	25	35.0	1.6	40.0	$ 4.11	$ 3.91
MCR3835-2	174	50	35.0	1.6	40.0	4.50	4.29
2N3870	174	100	35.0	1.6	40.0	5.32	5.07
2N3871	174	200	35.0	1.6	40.0	6.66	6.34
MCR3835-5	174	300	35.0	1.6	40.0	8.07	7.68
2N3872	174	400	35.0	1.6	40.0	8.71	8.30
MCR3835-7	174	500	35.0	1.6	40.0	9.84	9.37
2N3873	174	600	35.0	1.6	40.0	10.76	10.25
MCR3835-8	174	600	35.0	1.6	40.0	10.76	10.25
MCR3835-9	174	700	35.0	1.6	40.0	12.02	11.45
MCR3835-10	174	800	35.0	1.6	40.0	14.59	13.90
MCR3935-1	175	25	35.0	1.6	40.0	4.40	4.19
MCR3935-2	175	50	35.0	1.6	40.0	4.87	4.64
2N3896	175	100	35.0	1.6	40.0	5.81	5.53
2N3897	175	200	35.0	1.6	40.0	7.14	6.80
MCR3935-5	175	300	35.0	1.6	40.0	8.65	8.24
2N3898	175	400	35.0	1.6	40.0	9.19	8.76
MCR3935-7	175	500	35.0	1.6	40.0	10.27	9.78
2N3899	175	600	35.0	1.6	40.0	11.25	10.71
MCR3935-8	175	600	35.0	1.6	40.0	11.25	10.71
MCR3935-9	175	700	35.0	1.6	40.0	12.61	12.01
MCR3935-10	175	800	35.0	1.6	40.0	15.10	14.38
C229F	310	50	35.0	.....	40.0	4.40	4.19
C229A	310	100	35.0	.....	40.0	4.77	4.54
C229B	310	200	35.0	.....	40.0	7.33	6.98
C229C	310	300	35.0	.....	40.0	9.03	8.60
C229D	310	400	35.0	.....	40.0	10.59	10.08
C229E	310	500	35.0	.....	40.0	11.22	10.68
C229M	310	600	35.0	.....	40.0	11.88	11.31
C35F	263	50	35.0	3.0	40.0	7.57	7.21
C35A	263	100	35.0	3.0	40.0	7.67	7.30
C35B	263	200	35.0	3.0	40.0	9.63	9.18
C35C	263	300	35.0	3.0	40.0	11.57	11.02
C35D	263	400	35.0	3.0	40.0	12.66	12.05
C35E	263	500	35.0	3.0	40.0	14.27	13.59
C35M	263	600	35.0	3.0	40.0	14.99	14.27
C35S	263	700	35.0	3.0	40.0	13.20	12.57
C35N	263	800	35.0	3.0	40.0	19.00	18.10
C228F	263	50	35.0	2.5	40.0	4.88	4.65
C228A	263	100	35.0	2.5	40.0	5.13	4.89
C228B	263	200	35.0	2.5	40.0	8.65	8.24
C228C	263	300	35.0	2.5	40.0	9.39	8.94
C228D	263	400	35.0	2.5	40.0	10.97	10.45

Motorola Type	Case	V_{FOM} V_{ROM} V	I_T rms A	AT 25°C		Net Ea., Lots	
				V_{GT} V	I_{GT} mA	1-9	10-49
C228E	263	500	35.0	2.5	40.0	$11.58	$11.03
C228M	263	600	35.0	2.5	40.0	12.26	11.68
C228F3	311	50	35.0	2.5	40	6.50	6.19
C228A3	311	100	35.0	2.5	40	6.75	6.42
C228B3	311	200	35.0	2.5	40	10.27	9.78
C228C3	311	300	35.0	2.5	40	11.00	10.47
C228D3	311	400	35.0	2.5	40	12.58	11.98
C228E3	311	500	35.0	2.5	40	13.20	12.57
C228M3	311	600	35.0	2.5	40	13.87	13.21
2N6171	311	100	35	1.6	40	6.60	6.28
2N6172	311	200	35	1.6	40	8.12	7.74
2N6173	311	400	35	1.6	40	10.90	10.38
2N6174	311	600	35	1.6	40	12.98	12.36
MCR63-1	310	25	55	3.0	40	7.01	6.68
MCR63-2	310	50	55	3.0	40	7.41	7.05
MCR63-3	310	100	55	3.0	40	7.80	7.43
MCR63-4	310	200	55	3.0	40	8.07	7.68
MCR63-5	310	300	55	3.0	40	8.33	7.93
MCR63-6	310	400	55	3.0	40	9.11	8.67
MCRI63-7	310	500	55	3.0	40	10.15	9.66
MCR63-8	310	600	55	3.0	40	11.60	11.05
MCR63-9	310	700	55	3.0	40	13.56	12.92
MCR63-10	310	800	55	3.0	40	15.88	15.12
MCR64-1	263	25	55	3.0	40	7.57	7.21
MCR64-2	263	50	55	3.0	40	7.95	7.57
MCR64-3	263	100	55	3.0	40	8.36	7.96
MCR64-4	263	200	55	3.0	40	8.61	8.20
MCR64-5	263	300	55	3.0	40	8.89	8.46
MCR64-6	263	400	55	3.0	40	9.65	9.19
MCR64-7	263	500	55	3.0	40	10.70	10.19
MCR64-8	263	600	55	3.0	40	12.51	11.91
MCR64-9	263	700	55	3.0	40	14.47	13.78
MCR64-10	263	800	55	3.0	40	16.44	15.65
MCR65-1	311	25	55	3.0	40	8.48	8.07
MCR65-2	311	50	55	3.0	40	8.87	8.45
MCR65-3	311	100	55	3.0	40	9.28	8.84
MCR65-4	311	200	55	3.0	40	9.53	9.08
MCR65-5	311	300	55	3.0	40	9.81	9.34
MCR65-6	311	400	55	3.0	40	10.57	10.07
MCR65-7	311	500	55	3.0	40	11.63	11.07
MCR65-8	311	600	55	3.0	40	13.43	12.79
MCR65-9	311	700	55	3.0	40	15.40	14.66
MCR65-10	311	800	55	3.0	40	17.35	16.52

HOT-CARRIER POWER RECTIFIERS

Utilize Schottky barrier principle in a large area metal-to-silicon diode. Mult-Cell combinations providing increased capability available on request.

Motorola Type	Case	V_{RRM} V	I_O at T_C		V_F at I_F		Net Ea., Lots	
			A	°C	V	A	1-9	10-49
1N5817	59	20	1.0	.....	0.6	1.0	$ 1.20	$ 1.15
1N5818	59	30	1.0	.....	0.6	1.0	1.34	1.27
1N5819	59	40	1.0	.....	0.6	1.0	1.47	1.40
MBR120P	59	20	1.0	.....	0.65	1.0	1.07	1.02
MBR130P	59	30	1.0	.....	0.65	1.0	1.20	1.15
MBR140P	59	40	1.0	.....	0.65	1.0	1.34	1.27
1N5820	267	20	3.0	.....	0.53	3.0	1.91	1.82
1N5821	267	30	3.0	.....	0.53	3.0	2.13	2.03
1N5822	267	40	3.0	.....	0.53	3.0	2.93	2.79
MBR320P	267	20	3.0	.....	0.6	3.0	1.61	1.54
MBR330P	267	30	3.0	.....	0.6	3.0	1.91	1.82
MBR340P	267	40	3.0	.....	0.6	3.0	2.71	2.58
1N5823	60	20	5.0	.....	0.38	5.0	6.75	6.42
1N5824	60	30	5.0	.....	0.38	5.0	7.33	6.98
1N5825	60	40	5.0	.....	0.38	5.0	8.65	8.24
MBR320M	60	20	5.0	.....	0.45	5.0	5.72	5.45
MBR330M	60	30	5.0	.....	0.45	5.0	6.31	6.01
MBR335M	60	35	5.0	.....	0.45	5.0	6.82	6.49
MBR340M	60	40	5.0	.....	0.45	5.0	7.33	6.98
1N5826	245	20	15.0	85	0.5	15.0	6.75	6.42
1N5827	245	30	15.0	85	0.5	15.0	7.33	6.98
1N5828	245	40	15.0	85	0.5	15.0	8.65	8.24
MBR1520	245	20	15.0	80	0.55	15.0	5.72	5.45
MBR1530	245	30	15.0	80	0.55	15.0	6.31	6.01
MBR1535	245	35	15.0	80	0.55	15.0	6.82	6.49
MBR1540	245	40	15.0	80	0.55	15.0	7.33	6.98
1N5829	245	20	25.0	85	0.48	25.0	8.07	7.68
1N5830	245	30	25.0	85	0.48	25.0	8.80	8.38
1N5831	245	40	25.0	85	0.48	25.0	10.41	9.92
MBR2520	245	20	25.0	80	0.55	25.0	6.82	6.49
MBR2530	245	30	25.0	80	0.55	25.0	7.48	7.12
MBR2535	245	35	25.0	80	0.55	25.0	8.14	7.75
MBR2540	245	40	25.0	80	0.55	25.0	8.80	8.38



Motorola Type	Case	V_{RRM} V	I_O at T_C		V_F at I_F		Net Ea., Lots	
			A	°C	V	A	1-9	10-49
1N6095	245	30	.....	70	0.86	78.5	$ 6.82	$ 6.49
1N6096	245	40	.....	70	0.86	78.5	7.48	7.12
SD41	245	30	.....	90	0.7	78.5	6.16	5.87
MBR3535	245	35	.....	90	0.7	78.5	8.07	7.68
MBR3545	245	45	.....	90	0.7	78.5	8.65	8.24
1N5832	257	20	40	75	0.59	40	10.12	9.64
1N5833	257	30	40	75	0.59	40	11.22	10.68
1N5834	257	40	40	75	0.59	40	12.32	11.73
MBR4020	257	20	40	70	0.63	40	8.51	8.10
MBR4030	257	30	40	70	0.63	40	9.61	9.15
MBR4035	257	35	40	70	0.63	40	9.97	9.50
MBR4040	257	40	40	70	0.63	40	10.41	9.92
1N6097	257	30	.....	70	0.86	157	8.80	8.38
1N6098	257	40	.....	70	0.86	157	10.12	9.64
SD51	257	30	.....	90	0.8	157	8.80	8.38
MBR6035	257	35	.....	90	0.8	157	9.39	8.94
MBR6045	257	45	.....	90	0.8	157	11.00	10.47

SILICON BIDIRECTIONAL THYRISTORS (TRIACS)

METAL CASE

Motorola Type	Case	V_{BOM} V	I_T rms A	At 25°C		Net Ea., Lots	
				I_{GT} mA	V_{GT} V	1-9	10-49
SC246B	174	200	10	50	2.5	$ 4.11	$ 3.91
SC246D	174	400	10	50	2.5	4.91	4.68
SC246E	174	500	10	50	2.5	5.98	5.70
SC246M	174	600	10	50	2.5	6.45	6.15
SC245B	175	200	10	50	2.5	4.53	4.32
SC245D	175	400	10	50	2.5	5.35	5.10
SC245E	175	500	10	50	2.5	5.87	5.59
SC245M	175	600	10.0	40	2.5	5.85	5.57
2N5567	174	200	10.0	40	2.5	6.94	6.61
2N5568	174	400	10.0	40	2.5	4.47	4.26
2N5569	175	200	10.0	40	2.5	5.37	5.11
2N5570	175	400	10.0	40	2.5	4.96	4.72
T4121B	235	200	10.0	40	2.5	5.32	5.07
T4121D	235	400	10.0	40	2.5	6.04	5.75
T4121M	235	600	10.0	40	2.5	7.11	6.77
2N5571	174	200	15.0	50	2.5	4.77	4.54
2N5572	174	400	15.0	50	2.5	5.71	5.43
SC251B	174	200	15	50	2.5	4.36	4.15
SC251D	174	400	15	50	2.5	5.21	4.96
SC251E	174	500	15	50	2.5	6.35	6.05
SC251M	174	600	15.0	50	2.5	6.86	6.54
2N5573	175	200	15.0	50†	2.5†	5.25	5.00
2N5574	175	400	15.0	50†	2.5†	6.19	5.89
SC250B	175	200	15	50	2.5	4.81	4.58
SC250D	175	400	15	50	2.5	5.65	5.38
SC250E	175	500	15	50	2.5	5.78	5.50
SC250M	175	600	15.0	50	2.5	7.19	6.84
2N6145	311	200	15.0	50†	2.5†	6.94	6.61
2N6146	311	400	15.0	50†	2.5†	7.87	7.50
2N6147	311	600	15.0	50†	2.5†	9.31	8.87
T4120B	235	200	15	50†	2.5†	5.56	5.29
T4120D	235	400	15	50†	2.5†	6.31	6.01
T4120M	235	600	15	50†	2.5†	7.45	7.09
MAC20-4	326	200	15	50	2.0	8.90	8.48
MAC20-5	326	300	15	50	2.0	9.28	8.84
MAC20-6	326	400	15	50	2.0	9.94	9.47
MAC20-7	326	500	15	50	2.0	10.51	10.01
MAC20-8	326	600	15	50	2.0	11.10	10.57
MAC20-9	326	700	15	50	2.0	13.93	13.27
MAC20-10	326	800	15	50	2.0	17.24	16.42
MAC20A4	326	200	15	50	2.0	9.34	8.90
MAC20A5	326	300	15	50	2.0	9.94	9.47
MAC20A6	326	400	15	50	2.0	10.81	10.29
MAC20A7	326	500	15	50	2.0	11.07	10.54
MAC20A8	326	600	15	50	2.0	11.67	11.12
MAC20A9	326	700	15	50	2.0	14.52	13.83
MAC20A10	326	800	15	50	2.0	17.74	16.90
MAC25-4	326	200	25	70	2.0	9.94	9.47
MAC25-5	326	300	25	70	2.0	10.41	9.92
MAC25-6	326	400	25	70	2.0	10.90	10.38
MAC25-7	326	500	25	70	2.0	11.79	11.23
MAC25-8	326	600	25	70	2.0	12.24	11.66
MAC25-9	326	700	25	70	2.0	15.12	14.40
MAC25-10	326	800	25	70	2.0	18.43	17.55

†I_{GT} = 80 mA, V_{GT} = 2.5 V in quadrants II and IV. §I_{GT} = 70 mA, V_{GT} = 2.1 V in quadrants II and III; 100 mA and 2.5 V in quadrant IV. •I_{GT} = 100 mA, V_{GT} = 2.5 V in quadrant IV.

Motorola Type	Case	V_{BOM} V	I_T rms A	At 25°C		Net Ea., Lots	
				I_{GT} mA	V_{GT} V	1–99	100–999
MAC25A4	326	200	25	70	2.0	$10.41	$ 9.92
MAC25A5	326	300	25	70	2.0	10.90	10.38
MAC25A6	326	400	25	70	2.0	11.35	10.81
MAC25A7	326	500	25	70	2.0	12.26	11.68
MAC25A8	326	600	25	70	2.0	12.73	12.12
MAC25A9	326	700	25	70	2.0	15.60	14.86
MAC25A10	326	800	25	70•	2.0•	18.89	17.99
SC260B	263	200	25.0	50.0	2.5	5.75	5.48
SC260D	263	400	25.0	50.0	2.5	6.79	6.47
SC260E	263	500	25.0	50.0	2.5	7.98	7.60
SC260M	263	600	25.0	50.0	2.5	8.34	7.95
SC260B3	311	200	25.0	50.0	2.5	7.10	6.76
SC260D3	311	400	25.0	50.0	2.5	8.18	7.79
SC260E3	311	500	25.0	50.0	2.5	9.22	8.78
SC260M3	311	600	25.0	50.0	2.5	9.72	9.26
SC261B	310	200	25.0	50.0	2.5	5.34	5.08
SC261D	310	400	25.0	50.0	2.5	6.51	6.20
SC261E	310	500	25.0	50.0	2.5	7.57	7.21
SC261M	310	600	25.0	50.0	2.5	7.98	7.60
T6411B	263	200	30	50†	2.5†	5.69	5.42
T6411D	263	400	30	50†	2.5†	6.73	6.41
T6411M	263	600	30	50†	2.5†	8.33	7.93
T6421B	311	200	30	50†	2.5†	7.04	6.70
T6421D	311	400	30	50†	2.5†	8.09	7.71
T6421M	311	600	30	50†	2.5†	9.68	9:22
T6401B	310	200	30	50†	2.5†	5.29	5.04
T6401D	310	400	30	50†	2.5†	6.34	6.03
T6401M	310	600	30	50†	2.5†	7.93	7.56
T6400B	310	200	30	50†	2.5†	6.31	6.01
T6400D	310	400	30	50†	2.5†	7.77	7.40
T6400M	310	600	30	50†	2.5†	8.95	8.52
2N6157	174	200	30.0	60§	2.0§	4.83	4.60
2N6158	174	400	30.0	60§	2.0§	5.78	5.50
2N6159	174	600	30.0	60§	2.0§	7.33	6.98
2N6160	263	200	30.0	60§	2.0§	7.11	6.77
2N6161	263	400	30.0	60§	2.0§	8.42	8.02
2N6162	263	600	30.0	60§	2.0§	10.40	9.90
2N6163	311	200	30.0	60§	2.0§	8.80	8.38
2N6164	311	400	30.0	60§	2.0§	10.12	9.64
2N6165	311	600	30.0	60§	2.0§	12.10	11.52
T6410B	263	200	40	50†	2.5†	7.19	6.84
T6410D	263	400	40	50†	2.5†	8.21	7.82
T6410M	263	600	40	50†	2.5†	9.39	8.94
2N5441	310	200	40.0	70•	2.0•	8.27	7.88
2N5442	310	400	40.0	70•	2.0•	9.93	9.45
2N5443	310	600	40.0	70•	2.0•	12.41	11.82
2N5444	263	200	40.0	70•	2.0•	8.75	8.34
2N5445	263	400	40.0	70•	2.0•	10.41	9.92
2N5446	263	600	40.0	70•	2.0•	12.89	12.28
T6420B	311	200	40.0	70•	2.0•	8.36	7.96
T6420D	311	400	40.0	70•	2.0•	9.68	9.22
T6420M	311	600	40.0	70•	2.0•	11.67	11.12
T6420N	311	800	40	70	2.0	15.21	14.48
MAC50–4	326	200	40	70	2.0	10.50	10.00
MAC50–5	326	300	40	70	2.0	10.85	10.33
MAC50–6	326	400	40	70	2.0	11.53	10.98
MAC50–7	326	500	40	70	2.0	12.32	11.73
MAC50–8	326	600	40	70	2.0	12.77	12.16
MAC50–9	326	700	40	70	2.0	15.75	15.00
MAC50–10	326	800	40	70	2.0	19.06	18.16
MAC50A4	326	200	40	70	2.0	10.87	10.35
MAC50A5	326	300	40	70	2.0	11.20	10.67
MAC50A6	326	400	40	70	2.0	11.82	11.26
MAC50A7	326	500	40	70	2.0	12.77	12.16
MAC50A8	326	600	40	70	2.0	13.26	12.62
MAC50A9	326	700	40	70	2.0	16.23	15.46
MAC50A10	326	800	40	70	2.0	19.52	18.59

PULSE MODULATOR SCRs

I_{GT} = 50 mA, V_{GT} = 1.5 volts at 25°C.

100 A (PULSE)—CASE 63

Motorola Type	Case	V_{FOM} V_{ROM} V	At 25°C I_H mA	Net Each, Lots of	
				1-9	10-49
2N4199	63	300	3†	$ 75.02	$ 71.45
2N4200	63	400	3†	104.81	99.82
2N4201	63	500	3†	130.14	123.94
2N4202	63	600	3†	167.79	159.80
2N4203	63	700	3†	196.08	186.74
2N4204	63	800	3†	232.09	221.04
MCR729-5	63	300	25‡	59.15	56.34
MCR729-6	63	400	25‡	66.28	63.12
MCR729-7	63	500	25‡	82.86	78.92
MCR729-8	63	600	25‡	94.67	90.16
MCR729-9	63	700	25‡	106.46	101.39
MCR729-10	63	800	25‡	125.97	119.97

1000 A (PULSE)

Motorola Type	Case	V_{FOM} V_{ROM} V	At 25°C I mA	Net Each, Lots of	
				1-9	10-49
MCR1718-5	263	300	15‡	$42.99	$40.95
MCR1718-6	263	400	15‡	50.59	48.18
MCR1718-7	263	500	15‡	63.23	60.22
MCR1718-8	263	600	15‡	75.88	72.27

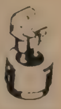
†Minimum. ‡Typical.

Silicon Thyristors

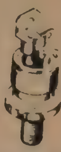
Case 29

Case 77

Case 263


Case 310

Case 235


Case 311

Case 63

Case 174

Case 211-01

Case 175

SILICON BIDIRECTIONAL THYRISTORS (TRIACS)

PLASTIC CASE

Motorola Type	Case	V_{BOM} V	I_T rms A	At 25°C		Net Ea., Lots	
				I_{GT} mA	V_{GT} V	1-9	10-49
MAC91-1	29	25	0.6	10.0	2.5	$0.60	$0.57
MAC91-2	29	50	0.6	10.0	2.5	.65	.61
MAC91-3	29	100	0.6	10.0	2.5	.68	.64
MAC91-4	29	200	0.6	10.0	2.5	.72	.69
MAC91-5	29	300	0.6	10.0	2.5	1.36	1.30
MAC91-6	29	400	0.6	10.0	2.5	1.47	1.40
MAC91-7	29	500	0.6	10.0	2.5	2.29	2.18
MAC91-8	29	600	0.6	10.0	2.5	3.52	3.35
MAC91A1	29	25	0.6	10.0	2.5	.69	.66
MAC91A2	29	50	0.6	10.0	2.5	.72	.69
MAC91A3	29	100	0.6	10.0	2.5	.75	.71
MAC91A4	29	200	0.6	10.0	2.5	.82	.78
MAC91A5	29	300	0.6	10.0	2.5	1.42	1.36
MAC91A6	29	400	0.6	10.0	2.5	1.53	1.45
MAC91A7	29	500	0.6	10.0	2.5	2.35	2.23
MAC91A8	29	600	0.6	10.0	2.5	3.58	3.41
MAC92-1	29	25	0.6	5.0	2.5	.65	.61
MAC92-2	29	50	0.6	5.0	2.5	.69	.66
MAC92-3	29	100	0.6	5.0	2.5	.72	.69
MAC92-4	29	200	0.6	5.0	2.5	.75	.71
MAC92-5	29	300	0.6	5.0	2.5	1.41	1.34
MAC92-6	29	400	0.6	5.0	2.5	1.53	1.45
MAC92-7	29	500	0.6	5.0	2.5	2.39	2.28
MAC92-8	29	600	0.6	5.0	2.5	3.62	3.45
MAC92A1	29	25	0.6	5.0	2.5	.73	.70
MAC92A2	29	50	0.6	5.0	2.5	.75	.71
MAC92A3	29	100	0.6	5.0	2.5	.79	.75
MAC92A4	29	200	0.6	5.0	2.5	.84	.80
MAC92A5	29	300	0.6	5.0	2.5	1.47	1.40
MAC92A6	29	400	0.6	5.0	2.5	1.60	1.52
MAC92A7	29	500	0.6	5.0	2.5	2.43	2.32
MAC92A8	29	600	0.6	5.0	2.5	3.68	3.51
MAC93-1	29	25	0.6	3.0	2.5	.68	.64
MAC93-2	29	50	0.6	3.0	2.5	.73	.70
MAC93-3	29	100	0.6	3.0	2.5	.75	.71
MAC93-4	29	200	0.6	3.0	2.5	.79	.75
MAC93-5	29	300	0.6	3.0	2.5	1.45	1.38
MAC93-6	29	400	0.6	3.0	2.5	1.60	1.52
MAC93-7	29	500	0.6	3.0	2.5	2.43	2.32
MAC93-8	29	600	0.6	3.0	2.5	3.80	3.62
MAC93A1	29	25	0.6	3.0	2.5	.79	.75
MAC93A2	29	50	0.6	3.0	2.5	.82	.78
MAC93A3	29	100	0.6	3.0	2.5	.87	.82
MAC93A4	29	200	0.6	3.0	2.5	.90	.85
MAC93A5	29	300	0.6	3.0	2.5	1.53	1.45
MAC93A6	29	400	0.6	3.0	2.5	1.80	1.72
MAC93A7	29	500	0.6	3.0	2.5	3.21	3.06
MAC93A8	29	600	0.6	3.0	2.5	4.25	4.05
MAC94-1	29	25	0.8	10.0	2.0	.65	.61
MAC94-2	29	50	0.8	10.0	2.0	.69	.66
MAC94-3	29	100	0.8	10.0	2.0	.72	.69
MAC94-4	29	200	0.8	10.0	2.0	.75	.71
MAC94-5	29	300	0.8	10.0	2.0	1.41	1.34
MAC94-6	29	400	0.8	10.0	2.0	1.51	1.44
MAC94-7	29	500	0.8	10.0	2.0	2.33	2.22
MAC94-8	29	600	0.8	10.0	2.0	3.56	3.39
MAC94A1	29	25	0.8	10.0	2.0	.73	.70
MAC94A2	29	50	0.8	10.0	2.0	.75	.71
MAC94A3	29	100	0.8	10.0	2.0	.79	.75
MAC94A4	29	200	0.8	10.0	2.0	.87	.82
MAC94A5	29	300	0.8	10.0	2.0	1.47	1.40
MAC94A6	29	400	0.8	10.0	2.0	1.57	1.49
MAC94A7	29	500	0.8	10.0	2.0	2.39	2.28
MAC94A8	29	600	0.8	10.0	2.0	3.62	3.45
MAC95-1	29	25	0.8	5.0	2.0	.69	.66
MAC95-2	29	50	0.8	5.0	2.0	.73	.70
MAC95-3	29	100	0.8	5.0	2.0	.75	.71
MAC95-4	29	200	0.8	5.0	2.0	.79	.75
MAC95-5	29	300	0.8	5.0	2.0	1.45	1.38
MAC95-6	29	400	0.8	5.0	2.0	1.57	1.49
MAC95-7	29	500	0.8	5.0	2.0	2.43	2.32
MAC95-8	29	600	0.8	5.0	2.0	3.68	3.51
MAC95A1	29	25	0.8	5.0	2.0	$0.78	$0.74
MAC95A2	29	50	0.8	5.0	2.0	.79	.75
MAC95A3	29	100	0.8	5.0	2.0	.84	.80
MAC95A4	29	200	0.8	5.0	2.0	.88	.84
MAC95A5	29	300	0.8	5.0	2.0	1.51	1.44
MAC95A6	29	400	0.8	5.0	2.0	1.63	1.55
MAC95A7	29	500	0.8	5.0	2.0	2.48	2.36
MAC95A8	29	600	0.8	5.0	2.0	3.72	3.55
MAC96-1	29	25	0.8	3.0	2.0	.72	.69
MAC96-2	29	50	0.8	3.0	2.0	.78	.74
MAC96-3	29	100	0.8	3.0	2.0	.79	.75
MAC96-4	29	200	0.8	3.0	2.0	.84	.80
MAC96-5	29	300	0.8	3.0	2.0	1.48	1.41
MAC96-6	29	400	0.8	3.0	2.0	1.63	1.55
MAC96-7	29	500	0.8	3.0	2.0	2.48	2.36
MAC96-8	29	600	0.8	3.0	2.0	3.83	3.65
MAC96A1	29	25	0.8	3.0	2.0	.84	.80
MAC96A2	29	50	0.8	3.0	2.0	.87	.82
MAC96A3	29	100	0.8	3.0	2.0	.90	.85
MAC96A4	29	200	0.8	3.0	2.0	.94	.89
MAC96A5	29	300	0.8	3.0	2.0	1.57	1.49
MAC96A6	29	400	0.8	3.0	2.0	1.85	1.76
MAC96A7	29	500	0.8	3.0	2.0	3.27	3.11
MAC96A8	29	600	0.8	3.0	2.0	4.46	4.25
T2322F	77	50	2.5	10.0	2.0	.72	.69
T2322A	77	100	2.5	10.0	2.0	.88	.84
T2322B	77	200	2.5	10.0	2.0	1.04	.99
T2322C	77	300	2.5	10.0	2.0	1.23	1.17
T2322D	77	400	2.5	10.0	2.0	1.36	1.30
T2322E	77	500	2.5	10.0	2.0	1.67	1.59
T2323F	77	50	2.5	25.0	2.2	.69	.66
T2323A	77	100	2.5	25.0	2.2	.85	.81
T2323B	77	200	2.5	25.0	2.2	1.01	.96
T2323C	77	300	2.5	25.0	2.2	1.20	1.15
T2323D	77	400	2.5	25.0	2.2	1.34	1.27
T2323E	77	500	2.5	25.0	2.2	1.64	1.57
T2327F	77	50	2.5	5.0	2.2	.75	.71
T2327A	77	100	2.5	5.0	2.2	.91	.87
T2327B	77	200	2.5	5.0	2.2	1.07	1.02
T2327C	77	300	2.5	5.0	2.2	1.32	1.26
T2327D	77	400	2.5	5.0	2.2	1.47	1.40
T2327E	77	500	2.5	5.0	2.2	1.72	1.63
T2301PF	77	50	2.5	4.0	2.2	.98	.94
T2301PA	77	100	2.5	4.0	2.2	1.06	1.01
T2301PB	77	200	2.5	4.0	2.2	1.14	1.09
T2301PC	77	300	2.5	4.0	2.2	1.32	1.26
T2301PD	77	400	2.5	4.0	2.2	1.41	1.34
T2301PE	77	500	2.5	4.0	2.2	2.30	2.19
T2301PM	77	600	2.5	4.0	2.2	2.83	2.70
T2302PF	77	50	2.5	10.0	2.2	.91	.87
T2302PA	77	100	2.5	10.0	2.2	.95	.91
T2302PB	77	200	2.5	10.0	2.2	1.07	1.02
T2302PC	77	300	2.5	10.0	2.2	1.29	1.23
T2302PD	77	400	2.5	10.0	2.2	1.34	1.27
T2302PE	77	500	2.5	10.0	2.2	2.24	2.14
T2302PM	77	600	2.5	10.0	2.2	2.24	2.14
SC136A	77	100	2.5	25.0	2.0	.94	.89
SC136B	77	200	2.5	25.0	2.0	.98	.94
SC136C	77	300	2.5	25.0	2.0	1.09	1.03
SC136D	77	400	2.5	25.0	2.0	1.17	1.12
SC136E	77	500	2.5	25.0	2.0	1.57	1.49
SC136M	77	600	2.5	25.0	2.0	1.86	1.77

LISTING CONTINUED ON FOLLOWING PAGE

SILICON BIDIRECTIONAL THYRISTORS (TRIACS) (CONT'D)

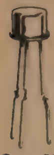
PLASTIC CASE

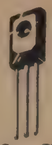
Motorola Type	Case	V_{BOM} V	I_T rms A	At 25°C		Net Ea., Lots	
				I_{GT} mA	V_{GT} V	1-9	10-49
2N6068	77	25	4.0	30.0	2.5	$0.91	$0.87
2N6069	77	50	4.0	30.0	2.5	1.00	.95
2N6070	77	100	4.0	30.0	2.5	1.16	1.10
2N6071	77	200	4.0	30.0	2.5	1.25	1.19
2N6072	77	300	4.0	30.0	2.5	1.31	1.24
2N6073	77	400	4.0	30.0	2.5	1.35	1.29
2N6074	77	500	4.0	30.0	2.5	2.08	1.98
2N6075	77	600	4.0	30.0	2.5	2.51	2.39
2N6068A	77	25	4.0	5.0	2.5	1.10	1.05
2N6069A	77	50	4.0	5.0	2.5	1.17	1.12
2N6070A	77	100	4.0	5.0	2.5	1.25	1.19
2N6071A	77	200	4.0	5.0	2.5	1.31	1.24
2N6072A	77	300	4.0	5.0	2.5	1.63	1.55
2N6073A	77	400	4.0	5.0	2.5	1.75	1.66
2N6074A	77	500	4.0	5.0	2.5	2.87	2.74
2N6075A	77	600	4.0	5.0	2.5	3.55	3.38
2N6068B	77	25	4.0	3.0	2.5	1.25	1.19
2N6069B	77	50	4.0	3.0	2.5	1.31	1.24
2N6070B	77	100	4.0	3.0	2.5	1.54	1.47
2N6071B	77	200	4.0	3.0	2.5	1.66	1.58
2N6072B	77	300	4.0	3.0	2.5	1.82	1.73
2N6073B	77	400	4.0	3.0	2.5	2.04	1.94
2N6074B	77	500	4.0	3.0	2.5	3.37	3.21
2N6075B	77	600	4.0	3.0	2.5	4.09	3.90
T2500B	221	200	6.0	50.0	2.5	1.83	1.75
T2500D	221	400	6.0	50.0	2.5	2.05	1.96
T2500E	221	500	6.0	25.0	2.5	3.00	2.86
T2500M	221	600	6.0	25.0	2.5	3.93	3.74
T2500S	221	700	6.0	25.0	2.5	4.99	4.75
T2500N	221	800	6.0	25.0	2.5	4.33	4.12
T2801B	221	200	6.0	80.0	4.0	1.53	1.45
T2801D	221	400	6.0	80.0	4.0	1.82	1.73
T2801E	221	500	6.0	80.0	4.0	2.13	2.03
T2801M	221	600	6.0	80.0	4.0	2.35	2.23
SC141B	221	200	6.0	50.0	2.5	1.76	1.68
SC141D	221	400	6.0	50.0	2.5	1.98	1.89
SC141E	221	500	6.0	50.0	2.5	2.79	2.65
SC141M	221	600	6.0	50.0	2.5	3.67	3.49
MAC222A1	221	25	8.0	50.0	2.0	1.17	1.12
MAC222A2	221	50	8.0	50.0	2.0	1.31	1.24
MAC222A3	221	100	8.0	50.0	2.0	1.45	1.38
MAC222A4	221	200	8.0	50.0	2.0	1.58	1.51
MAC222A5	221	300	8.0	50.0	2.0	1.67	1.59
MAC222A6	221	400	8.0	50.0	2.0	1.79	1.70
MAC222A7	221	500	8.0	50.0	2.0	2.52	2.40
MAC222A8	221	600	8.0	50.0	2.0	3.47	3.30
MAC222A9	221	700	8.0	50.0	2.0	3.81	3.63
MAC222A10	221	800	8.0	50.0	2.0	4.55	4.33
MAC222-1	221	25	8.0	50.0	2.0	1.14	1.09
MAC222-2	221	50	8.0	50.0	2.0	1.28	1.22
MAC222-3	221	100	8.0	50.0	2.0	1.42	1.36
MAC222-4	221	200	8.0	50.0	2.0	1.56	1.48
MAC222-5	221	300	8.0	50.0	2.0	1.64	1.57
MAC222-6	221	400	8.0	50.0	2.0	1.76	1.68
MAC222-7	221	500	8.0	50.0	2.0	2.49	2.37
MAC222-8	221	600	8.0	50.0	2.0	3.42	3.26
MAC222-9	221	700	8.0	50.0	2.0	3.75	3.58
MAC222-10	221	800	8.0	50.0	2.0	4.49	4.27
MAC220-2	221	50	8.0	......	......	1.39	1.33
MAC220-3	221	100	8.0	......	......	1.47	1.40
MAC220-5	221	300	8.0	......	......	1.83	1.75
MAC220-7	221	500	8.0	......	......	2.35	2.23
MAC220-9	221	700	8.0	......	......	4.11	3.91
T2800B	221	200	8.0	25.0	2.5	1.91	1.82
T2800C	221	300	8.0	25.0	2.5	2.32	2.21
T2800D	221	400	8.0	25.0	2.5	2.38	2.26
T2800E	221	500	8.0	25.0	2.5	2.79	2.65
T2800M	221	600	8.0	25.0	2.5	3.37	3.21
T2802B	221	200	8.0	50.0	2.5	2.76	2.63
T2802C	221	300	8.0	50.0	2.5	3.05	2.90
T2802D	221	400	8.0	50.0	2.5	3.56	3.39
T2802E	221	500	8.0	50.0	2.5	5.10	4.85
T2802M	221	600	8.0	50.0	2.5	6.31	6.01
MAC228-2	221	50	8.0	5.0	2.2	1.61	1.54
MAC228-3	221	100	8.0	5.0	2.2	1.69	1.61
MAC228-4	221	200	8.0	5.0	2.2	1.76	1.68
MAC228-5	221	300	8.0	5.0	2.2	1.83	1.75
MAC228-6	221	400	8.0	5.0	2.2	1.91	1.82
MAC228-7	221	500	8.0	5.0	2.2	2.76	2.63
MAC228-8	221	600	8.0	5.0	2.2	3.53	3.37
MAC228-9	221	700	8.0	5.0	2.2	3.99	3.80
MAC228-10	221	800	8.0	5.0	2.2	4.88	4.65
MAC228A2	221	50	8.0	10.0	2.5	1.64	1.57
MAC228A3	221	100	8.0	10.0	2.5	1.72	1.63
MAC228A4	221	200	8.0	10.0	2.5	1.79	1.70
MAC228A5	221	300	8.0	10.0	2.5	1.86	1.77
MAC228A6	221	400	8.0	10.0	2.5	1.95	1.86
MAC228A7	221	500	8.0	10.0	2.5	2.80	2.67
MAC228A8	221	600	8.0	10.0	2.5	3.58	3.41
MAC228A9	221	700	8.0	10.0	2.5	4.03	3.84
MAC228A10	221	800	8.0	10.0	2.5	5.03	4.79

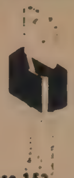
Motorola Type	Case	V_{BOM} V	I_T rms A	At 25°C		Net Ea., Lots	
				I_{GT} mA	V_{GT} V	1-9	10-49
MAC221-2	221	50	8.0	......	......	$1.53	$1.45
MAC221-3	221	100	8.0	......	......	1.61	1.54
MAC221-5	221	300	8.0	......	......	2.02	1.93
MAC221-7	221	500	8.0	......	......	2.46	2.35
MAC221-9	221	700	8.0	......	......	4.40	4.19
2N6342	221	200	8.0	50.0	2.0	1.61	1.54
2N6343	221	400	8.0	50.0	2.0	2.13	2.03
2N6344	221	600	8.0	50.0	2.0	2.93	2.79
2N6345	221	800	8.0	50.0	2.0	5.57	5.31
2N6346	221	200	8.0	75.0	2.5	1.91	1.82
2N6347	221	400	8.0	75.0	2.5	2.27	2.17
2N6348	221	600	8.0	75.0	2.5	3.08	2.93
2N6349	221	800	8.0	75.0	2.5	5.87	5.59
SC146B	221	200	10.0	50.0	2.5	2.08	1.98
SC146C	221	300	10.0	50.0	2.5	2.20	2.10
SC146D	221	400	10.0	50.0	2.5	2.57	2.44
SC146E	221	500	10.0	50.0	2.5	3.67	3.49
2N6342A	221	200	12.0	50.0	2.0	2.05	1.96
2N6343A	221	400	12.0	50.0	2.0	2.49	2.37
2N6344A	221	600	12.0	50.0	2.0	3.37	3.21
2N6345A	221	800	12.0	50.0	2.0	6.23	5.94
2N6346A	221	200	12.0	75.0	2.5	2.20	2.10
2N6347A	221	400	12.0	75.0	2.5	2.64	2.51
2N6348A	221	600	12.0	75.0	2.5	3.67	3.49
2N6349A	221	800	12.0	75.0	2.5	6.60	6.28
MAC15-4	221	200	15.0	50.0	2.0	3.20	3.04
MAC15-6	221	400	15.0	50.0	2.0	3.83	3.65
MAC15-8	221	600	15.0	50.0	2.0	4.58	4.36
MAC15-10	221	800	15.0	50.0	2.0	4.81	4.58
MAC15A4	221	200	15.0	50.0	2.0	3.36	3.20
MAC15A6	221	400	15.0	50.0	2.0	4.02	3.83
MAC15A8	221	600	15.0	50.0	2.0	4.81	4.58
MAC15A10	221	800	15.0	50.0	2.0	5.04	4.80
MAC223-3	221	100	25.0	50.0	2.0	2.54	2.42
MAC223-4	221	200	25.0	50.0	2.0	2.80	2.67
MAC223-5	221	300	25.0	50.0	2.0	2.93	2.79
MAC223-6	221	400	25.0	50.0	2.0	3.18	3.03
MAC223-7	221	500	25.0	50.0	2.0	3.45	3.28
MAC223-8	221	600	25.0	50.0	2.0	4.19	3.99
MAC223-9	221	700	25.0	50.0	2.0	5.97	5.68
MAC223-10	221	800	25.0	50.0	2.0	6.99	6.66
MAC223A3	221	100	25.0	50.0	2.0	2.60	2.47
MAC223A4	221	200	25.0	50.0	2.0	2.87	2.74
MAC223A5	221	300	25.0	50.0	2.0	3.04	2.89
MAC223A6	221	400	25.0	50.0	2.0	3.30	3.14
MAC223A7	221	500	25.0	50.0	2.0	3.56	3.39
MAC223A8	221	600	25.0	50.0	2.0	4.31	4.11
MAC223A9	221	700	25.0	50.0	2.0	6.15	5.85
MAC223A10	221	800	25.0	50.0	2.0	7.08	6.75
MAC525-4	342	200	25.0	50.0	2.0	4.11	3.91
MAC525-5	342	300	25.0	50.0	2.0	4.27	4.06
MAC525-7	342	500	25.0	50.0	2.0	4.47	4.26
MAC525-8	342	600	25.0	50.0	2.0	5.35	5.10
MAC525-9	342	700	25.0	50.0	2.0	6.85	6.52
MAC525A4	342	200	25.0	50.0	2.0	4.15	3.95
MAC525A5	342	300	25.0	50.0	2.0	4.27	4.06
MAC525A6	342	400	25.0	50.0	2.0	4.40	4.19
MAC525A7	342	500	25.0	50.0	2.0	4.55	4.33
MAC525A8	342	600	25.0	50.0	2.0	5.50	5.24
MAC525A9	342	700	25.0	50.0	2.0	6.99	6.66

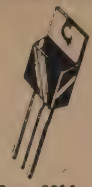
MOTOROLA
Semiconductors

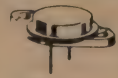
SILICON POWER TRANSISTORS

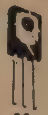

Case 31

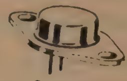

Case 77

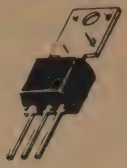

Case 152

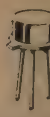

Case 221A

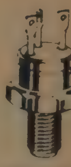

Case 11
Case 197


Case 90


Case 80


Case 306


Case 79


Case 160

SILICON POWER TRANSISTORS

Listed in order of I_C Cont. and BV_{CEO}. P_D at 25°C

Motorola Type	Case	h_{FE} at I_C		BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each	
		Min.-Max.	A				1-9	10-49
				NPN				
D40N1	306	30–90	0.02	250	6.25	0.1	$1.20	$1.15
D40N2	306	60–180	0.02	250	6.25	0.1	1.29	1.23
D40N3	306	30–90	0.02	300	6.25	0.1	1.39	1.33
D40N4	306	60–180	0.02	300	6.25	0.1	1.48	1.41
MJE3440	77	40–160	0.02	250	15	0.3	1.12	1.06
MJE3439	77	40–160	0.02	350	15	0.3	1.32	1.26
D40C1	306	10K–60K	0.2	30	6.25	0.5	.85	.81
D40C2	306	40K min.	0.2	30	6.25	0.5	1.20	1.15
D40C4	306	10K–60K	0.2	40	6.25	0.5	.97	.92
D40C5	306	40K min.	0.2	40	6.25	0.5	1.39	1.33
TIP61	221A	15–100	0.5	40	15	0.5	.78	.74
TIP61A	221A	15–100	0.5	60	15	0.5	.84	.80
MPSU31	152	10 min.	0.13	65	10	0.5	1.48	1.41
TIP61B	221A	15–100	0.5	80	15	0.5	.91	.87
TIP61C	221A	15–100	0.5	100	15	0.5	.97	.92
D40P1	306	40 min.	0.08	120	6.25	0.5	1.26	1.20
2N6591	306	40–200	0.1	150	10	0.5	1.19	1.13
D40P3	306	40 min.	0.08	180	6.25	0.5	1.41	1.34
MJE341	77	25–200	0.05	150	20.8	0.5	1.25	1.19
MJE344	77	30–300	0.05	200	20.8	0.5	1.31	1.24
2N6592	306	30–200	0.1	200	10	0.5	1.32	1.26
D40P5	306	40 min.	0.08	225	6.25	0.5	1.70	1.62
2N5655	77	30–250	0.1	250	20	0.5	1.39	1.33
2N6557	306	40–180	0.03	250	10	0.5	1.09	1.03
2N6593	306	30–200	0.1	250	10	0.5	1.47	1.40
MDS20	306	40–250	0.03	250	10	0.5	1.09	1.03
MJE340	77	30–240	0.05	300	20.8	0.5	1.57	1.49
MDS21	306	40–250	0.03	300	10	0.5	1.19	1.13
2N6558	306	40–180	0.03	300	10	0.5	1.19	1.13
MPSU10	152	30 min.	0.03	300	10	0.5	1.23	1.17
2N5656	77	30–250	0.1	300	20	0.5	1.63	1.55
2N6559	306	40–180	0.03	350	10	0.5	1.39	1.33
2N5657	77	30–250	0.1	350	20	0.5	1.92	1.83
MJE-2360T	221A	15 min.	0.1	350	30	0.5	1.58	1.51
MJE-2361T	221A	40 min.	0.1	350	30	0.5	2.08	1.98
MPSU02	152	30 min.	0.5	40	10	0.8	1.06	1.01
D40D1	79	10 min.	1.0	30	10	1.0	.85	.81
D40D2	79	20 min.	1.0	30	10	1.0	1.07	1.02
TIP29	221A	15–75	1.0	40	30	1.0	.81	.77
2N4921	77	20–100	0.5	40	30	1.0	1.70	1.62
D40D4	306	10 min.	1.0	45	10	1.0	1.01	.96
D40D5	306	10 min.	1.0	45	10	1.0	1.17	1.12
D40D7	306	10 min.	1.0	60	10	1.0	1.13	1.08
D40D8	306	10 min.	1.0	60	10	1.0	1.26	1.20
2N6551	306	25 min.	0.5	60	10	1.0	1.00	.95
TIP29A	221A	15–75	1.0	60	30	1.0	.87	.82
2N4922	77	20–100	0.5	60	30	1.0	1.98	1.89
D40D10	306	10 min.	1.0	75	10	1.0	1.35	1.29
D40D11	306	10 min.	1.0	75	10	1.0	1.41	1.34
D40D13	306	50–150	0.1	75	10	1.0	1.13	1.08
D40D14	306	50–150	0.1	75	10	1.0	1.41	1.34
2N4923	77	20–100	0.5	80	30	1.0	2.27	2.17
2N3019	79	50 min.	0.5	80	5	1.0	1.07	1.02
2N3020	79	30–100	0.5	80	5	1.0	5.57	5.31
2N4912	80	20–100	0.5	80	25	1.0	1.88	1.79
2N6552	306	25 min.	0.5	80	10	1.0	1.09	1.03
TIP29B	221A	15–75	1.0	80	30	1.0	.94	.89
2N5681	79	40–150	0.25	100	10	1.0	1.76	1.68
2N6553	306	25 min.	0.5	100	10	1.0	1.19	1.13
TIP29C	221A	15–75	1.0	100	30	1.0	1.03	.98
2N5682	79	40–150	0.25	120	10	1.0	2.01	1.91
MPSU03	152	40 min.	0.01	120	10	1.0	1.19	1.13
2N3583	80	40–200	0.5	175	35	1.0	1.60	1.52
MPSU04	152	40 min.	0.01	180	10	1.0	1.25	1.19
2N3738	80	40–200	0.1	225	20	1.0	2.26	2.15
2N3440	79	40–160	0.02	250	5	1.0	1.32	1.26
TIP47	221A	30–150	0.3	250	40	1.0	1.25	1.19
TIP48	221A	30–150	0.3	300	40	1.0	1.32	1.26
2N3739	80	40–200	0.1	300	20	1.0	2.84	2.71
2N3439	79	40–160	0.02	350	5	1.0	1.60	1.52
TIP49	221A	30–150	0.3	350	40	1.0	1.39	1.33
TIP50	221A	30–150	0.3	400	40	1.0	1.63	1.55
2N3734	79	30–120	1.0	50	4	1.5	3.59	3.42
2N3735	79	20–80	1.0	75	4	1.5	1.23	1.17
MJ4360	80	5–25	1.0	300	40	1.5	1.88	1.79
MJE13002	77	5–25	1.0	300	40	1.5	1.69	1.61
MJ4361	80	5–25	1.0	400	40	1.5	2.27	2.17
MJE13003	77	5–25	1.0	400	40	1.5	2.11	2.01
MPSU01	152	50 min.	1.0	30	10	2.0	1.00	.95
D40E1	306	10 min.	1.0	30	8	2.0	.91	.87
D40K1	306	1K min.	1.5	30	10	2.0	1.12	1.06
				NPN CONTINUED				
D40K3	306	1K min.	1.0	30	10	2.0	$ 1.14	$1.09
2N5859	79	30–120	0.5	40	5	2.0	1.58	1.51
MPSU01A	152	50 min.	1.0	40	10	2.0	1.09	1.03
MPSU45	152	4K min.	1.0	40	10	2.0	1.25	1.19
2N6548	306	5K min.	1.0	40	10	2.0	1.35	1.29
2N6549	306	3K min.	1.0	40	10	2.0	1.14	1.09
D40K2	306	1K min.	1.5	50	10	2.0	1.26	1.20
D40K4	306	1K min.	1.0	50	10	2.0	1.29	1.23
2N5861	79	25–120	0.5	60	5	2.0	2.57	2.44
MPSU05	152	60 min.	0.25	60	10	2.0	1.00	.95
D40E5	306	10 min.	1.0	60	8	2.0	1.17	1.12
TIP110	221A	500 min.	2.0	60	50	2.0	1.36	1.30
MPSU06	152	60 min.	0.25	80	10	2.0	1.09	1.03
D40E7	306	10 min.	1.0	80	8	2.0	1.41	1.34
TIP111	221A	500 min.	2.0	80	50	2.0	1.42	1.36
2N4240	80	30–150	0.75	300	35	2.0	2.49	2.37
MM3007	79	50–250	0.25	100	8	2.0	4.25	4.05
MPSU07	152	30 min.	0.25	100	10	2.0	1.19	1.13
TIP112	221A	500 min.	2.0	100	50	2.0	1.51	1.44
2N5050	80	25–100	0.75	125	40	2.0	3.46	3.30
2N5051	80	25–100	0.75	150	40	2.0	4.46	4.25
2N5052	80	25–100	0.75	200	40	2.0	4.96	4.72
2N3584	80	25–100	1.0	250	35	2.0	2.35	2.23
2N3585	80	25–100	1.0	300	35	2.0	2.42	2.31
MJE270	77	1.5K min.	0.12	100	15	2.0	1.48	1.41
MJ8500	11	7.5 min.	0.5	700	125	2.5	4.25	4.05
MJE8500	221A	7.5 min.	0.5	700	65	2.5	4.25	4.05
MJE-12007	221A	1.1 min.	2.0	750	65	2.5	4.46	4.25
MJ8501	11	7.5 min.	0.5	800	125	2.5	4.96	4.72
MJE8501	221A	7.5 min.	0.5	800	65	2.5	4.96	4.72
BU204	11	2 min.	2.0	1300	36	2.5	3.96	3.77
BU205	11	2 min.	2.0	1500	36	2.5	5.65	5.38
MJ12002	11	1.1 min.	2.0	1500	75	2.5	4.85	4.62
MJE520	77	25 min.	1.0	30	25	3.0	1.26	1.20
MDS26	306	30 min.	1.0	40	12.5	3.0	1.19	1.13
MJE180	77	50–250	0.1	40	12.5	3.0	1.03	.98
MJE31	77	25 min.	1.0	40	40	3.0	1.01	.96
TIP31	221A	25 min.	1.0	40	40	3.0	.92	.88
2N4237	79	30–150	0.25	40	6	3.0	1.61	1.54
2N4238	79	30–150	0.25	60	6	3.0	2.05	1.96
2N3506	79	40–200	1.5	60	5	3.0	10.02	9.54
MDS27	306	30 min.	1.0	60	12.5	3.0	1.29	1.23
MJE181	77	50–250	0.1	60	12.5	3.0	1.07	1.02
MJE31A	77	25 min.	1.0	60	40	3.0	1.06	1.01
TIP31A	221A	25 min.	1.0	60	40	3.0	.98	.94
2N4239	79	30–150	0.25	80	6	3.0	2.35	2.23
MJE182	77	50–250	0.1	80	12.5	3.0	1.17	1.12
MJE31B	77	25 min.	1.0	80	40	3.0	1.13	1.08
TIP31B	221A	25 min.	1.0	80	40	3.0	1.06	1.01
2N3507	79	40–200	1.5	80	5	3.0	10.49	9.99
2N3441	80	25–100	0.5	140	25	3.0	1.47	1.40
MJE31C	77	25 min.	1.0	100	40	3.0	1.20	1.15
TIP31C	221A	25 min.	1.0	100	40	3.0	1.14	1.09
2N5838	11	8–40	3.0	250	100	3.0	2.87	2.74
2N5839	11	10–50	2.0	275	100	3.0	3.17	3.02
2N5840	11	10–50	2.0	350	100	3.0	3.56	3.39
2N3902	11	30–90	1.0	325	100	3.5	6.94	6.61
MJE3300	77	1K min.	1.0	40	15	4.0	1.58	1.51
2N5190	77	25–100	1.5	40	40	4.0	1.53	1.45
2N6037	77	750–18K	2.0	40	40	4.0	2.02	1.93
MJE521	77	40 min.	1.0	40	40	4.0	1.63	1.55
2N6121	221A	25–100	1.5	45	40	4.0	.98	.94
2N3054	80	25–100	0.5	60	75	4.0	1.72	1.63
2N3054A	80	25–100	0.5	60	75	4.0	1.69	1.61
2N3766	80	40–160	0.5	60	20	4.0	2.19	2.08
MJE3301	77	1K min.	1.0	60	15	4.0	1.80	1.72
2N5191	77	25–100	1.5	60	40	4.0	1.79	1.70
MJE800	77	750 min.	1.5	60	40	4.0	1.76	1.68
2N6122	221A	25–100	1.5	60	40	4.0	1.09	1.03
2N6294	80	750–18K	2.0	60	50	4.0	2.38	2.26
MJE801	77	750 min.	2.0	60	40	4.0	1.94	1.84
2N6038	77	750–18K	2.0	60	40	4.0	2.24	2.14
MJE800T	221A	750 min.	1.5	60	40	4.0	1.53	1.45
MJE801T	221A	750 min.	2.0	60	40	4.0	1.75	1.66
2N6039	77	750–18K	2.0	80	40	4.0	2.61	2.49
MJE803	77	750 min.	2.0	80	40	4.0	2.33	2.22
MJE802T	221A	750 min.	1.5	80	40	4.0	1.79	1.70
MJE803T	221A	750 min.	2.0	80	40	4.0	2.08	1.98
MJE241	77	40–120	0.2	80	15	4.0	1.80	1.72
2N4912	80	20–100	0.5	80	25	4.0	1.88	1.79

POWER TRANSISTOR LISTING CONTINUED ON NEXT PAGE

SILICON POWER TRANSISTORS (Cont'd)

For illustration, see a previous page.

Motorola Type	Case	h_{FE} at I_C		BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each	
		Min.-Max.	A				1-9	10-49
NPN (CONTINUED)								
2N3767	80	40–160	0.5	80	20	4.0	$ 2.49	$ 2.37
MJE3302	77	1K min.	1.0	80	15	4.0	2.02	1.93
2N5192	77	25–100	1.5	80	40	4.0	2.08	1.98
MJE802	77	750 min.	1.5	80	40	4.0	2.04	1.94
2N6123	221A	25–80	1.5	80	40	4.0	1.16	1.10
2N6295	80	750–18K	2.0	80	50	4.0	2.58	2.46
MJE243	77	40–120	0.2	100	15	4.0	2.02	1.93
FT317	221A	20 min.	3.0	100	40	4.0	2.02	1.93
FT317A	221A	20 min.	3.0	120	40	4.0	2.19	2.08
FT317B	221A	20 min.	3.0	140	40	4.0	2.38	2.26
MJ4380	80	8–40	2.0	300	75	4.0	2.87	2.74
MJE-13004	221A	6–30	3.0	300	60	4.0	2.67	2.54
MJ4381	80	8–40	2.0	400	75	4.0	3.56	3.39
MJE-13005	221A	6–30	3.0	400	60	4.0	3.37	3.21
MJ12003	11	2.5 min.	3.0	1500	100	4.0	5.54	5.28
MJE200	77	45–180	2.0	25	15	5.0	1.39	1.33
2N5067	11	20–180	1.0	40	87.5	5.0	1.58	1.51
2N4231A	80	25–100	1.5	40	75	5.0	1.63	1.55
2N5977	90	20–120	2.5	40	75	5.0	2.48	2.36
2N4904	11	25–100	2.5	40	87.5	5.0	2.48	2.36
MJE205	90	25–100	2.0	50	65	5.0	2.87	2.74
2N5068	11	20–180	1.0	60	87.5	5.0	1.79	1.70
2N4232A	80	25–100	1.5	60	75	5.0	1.88	1.79
2N5978	90	25–100	2.5	60	75	5.0	2.82	2.68
2N4914	11	25–100	2.5	60	87.5	5.0	2.08	1.98
MJE1100	90	750 min.	3.0	60	70	5.0	3.04	2.89
MJE1101	90	750 min.	4.0	60	70	5.0	3.27	3.11
TIP120	221A	1K min.	3.0	60	65	5.0	1.70	1.62
TIP121	221A	1K min.	3.0	80	65	5.0	1.91	1.82
2N5069	11	20–180	1.0	80	87.5	5.0	1.98	1.89
2N4233A	80	25–100	1.5	80	75	5.0	2.35	2.23
2N5336	79	30–120	2.0	80	6	5.0	7.13	6.79
2N5337	79	60–240	2.0	80	6	5.0	8.42	8.02
2N5979	90	20–120	2.5	80	75	5.0	3.37	3.21
2N4915	11	25–100	2.5	80	87.5	5.0	2.38	2.26
MJE1102	90	750 min.	3.0	80	70	5.0	3.61	3.44
MJE1103	90	750 min.	4.0	80	70	5.0	3.95	3.76
2N5338	79	30–120	2.0	100	10	5.0	9.11	8.67
2N5339	79	60–240	2.0	100	6	5.0	10.00	9.53
TIP122	221A	1K min.	3.0	100	75	5.0	2.19	2.08
2N4347	11	15–60	2.0	120	100	5.0	2.05	1.96
MJ410	11	30–90	1.0	200	100	5.0	3.67	3.49
2N6233	80	25–125	1.0	225	50	5.0	7.55	7.19
MJ3029	11	30 min.	0.4	250	125	5.0	3.59	3.42
MJ1800	11	40–120	0.4	250	100	5.0	4.40	4.19
2N6497	221A	10–75	2.5	250	80	5.0	2.93	2.79
MJE51T	221A	5 min.	5.0	250	80	5.0	2.86	2.72
2N6234	80	25–125	1.0	275	50	5.0	7.85	7.47
2N5838	11	8–40	3.0	250	100	5.0	2.87	2.74
2N5839	11	10–50	2.0	275	100	5.0	3.17	3.02
MJ411	11	30–90	1.0	300	100	5.0	4.03	3.84
2N6542	11	7–35	3.0	300	100	5.0	3.56	3.39
MJ4400	80	12–60	1.5	300	100	5.0	3.56	3.39
MJE52T	221A	5 min.	5.0	300	80	5.0	3.37	3.21
2N6498	221A	10–75	2.5	300	80	5.0	3.52	3.35
2N6235	80	25–125	1.0	325	50	5.0	8.14	7.75
MJ3030	11	4 min.	3.0	325	125	5.0	5.50	5.24
2N5241	11	15–35	2.5	325	125	5.0	17.82	16.97
2N5840	11	10–50	2.0	350	100	5.0	3.56	3.39
MJE53T	221A	5 min.	5.0	350	80	5.0	4.47	4.26
2N6499	221A	10–75	2.5	350	80	5.0	5.13	4.89
2N6543	11	7–35	3.0	400	100	5.0	4.36	4.15
MJ13070	11	8 min.	3.0	400	125	5.0	3.56	3.39
MJ4401	80	12–60	1.5	400	100	5.0	4.36	4.15
MJ13071	11	8 min.	3.0	450	125	5.0	4.36	4.15
MJ16002	11	5 min.	5.0	450	125	5.0	5.35	5.10
MJ16004	11	7 min.	5.0	450	125	5.0	6.54	6.23
MJ8502	11	7.5 min.	1.0	700	150	5.0	5.44	5.18
MJE8502	221A	7.5 min.	1.0	700	80	5.0	5.44	5.18
MJ8503	11	7.5 min.	1.0	800	150	5.0	6.44	6.13
MJE8503	221A	7.5 min.	1.0	800	80	5.0	6.44	6.13
BU207	11	2 min.	4.5	1300	125	5.0	5.54	5.28
BU208	11	2 min.	4.5	1500	125	5.0	7.63	7.26
MJ12004	11	2.5 min.	4.5	1500	100	5.0	6.15	5.85
TIP41	221A	15–75	3.0	40	65	6.0	1.19	1.13
TIP41A	221A	15–75	3.0	60	65	6.0	1.29	1.23
TIP41B	221A	15–75	3.0	80	65	6.0	1.35	1.29
TIP41C	221A	15–75	3.0	100	65	6.0	1.57	1.49
2N5758	11	25–100	3.0	100	150	6.0	1.69	1.61
2N5759	11	20–80	3.0	120	150	6.0	1.88	1.79
2N5760	11	15–60	3.0	140	150	6.0	2.19	2.08
MJ15011	11	20–100	2.0	250	200	6.0	4.75	4.52
2N6288	221A	30–150	3.0	30	40	7.0	1.01	.96
2N6129	221A	20–100	2.5	40	50	7.0	1.23	1.17
2N6290	221A	30–150	2.5	50	40	7.0	1.07	1.02
2N6315	80	20–100	2.5	60	90	7.0	1.76	1.68
2N6130	221A	20–100	2.5	60	50	7.0	1.36	1.30
2N6292	221A	30–150	3.0	70	40	7.0	1.07	1.02
2N5427	80	30–120	2.0	80	40	7.0	4.36	4.15
2N5346	160	30–120	2.0	80	60	7.0	22.76	21.67
2N5428	80	60–240	2.0	80	40	7.0	4.56	4.34
2N5347	160	60–240	2.0	80	60	7.0	$25.73	$24.51
2N6316	80	20–100	2.5	80	90	7.0	1.97	1.87
2N6131	221A	20–100	2.5	80	50	7.0	1.51	1.44
2N5429	80	30–120	2.0	100	40	7.0	4.75	4.52
2N5348	160	30–120	2.0	100	60	7.0	26.73	25.46
2N5430	80	60–240	2.0	100	40	7.0	4.96	4.72
2N5349	160	60–240	2.0	100	60	7.0	32.67	31.11
2N6078	80	12–70	1.2	250	45	7.0	5.44	5.18
2N6077	80	12–70	1.2	275	45	7.0	3.96	3.77
MJ3040	11	100 min.	2.5	300	100	7.0	7.70	7.33
MJ3041	11	250 min.	2.5	300	100	7.0	9.83	9.36
MJ3042	11	250 min.	2.5	350	100	7.0	12.10	11.52
2N3445	11	20–60	3.0	60	115	7.5	5.84	5.56
2N3447	11	40–120	5.0	60	115	7.5	7.42	7.07
2N3446	11	20–60	3.0	80	115	7.5	6.34	6.03
2N3448	11	40–120	5.0	80	115	7.5	7.92	7.54
2N5983	90	20–120	4.0	40	90	8.0	2.64	2.51
2N6386	221A	1K–20K	3.0	40	65	8.0	1.39	1.33
2N6043	221A	1K–10K	4.0	60	75	8.0	2.57	2.44
TIP100	221A	1K–20K	3.0	60	80	8.0	1.45	1.38
MJ1000	11	1K min.	3.0	60	90	8.0	2.19	2.08
TIP120	221A	1K min.	3.0	60	65	8.0	1.70	1.62
2N5984	90	20–120	4.0	60	90	8.0	2.98	2.84
2N6300	80	750–18K	4.0	60	75	8.0	2.27	2.17
2N6055	11	750–18K	4.0	60	100	8.0	2.02	1.93
MJE6043	90	1K–20K	4.0	60	75	8.0	2.67	2.54
MJ1001	11	1K min.	3.0	80	90	8.0	2.58	2.46
TIP121	221A	1K min.	3.0	80	65	8.0	1.91	1.82
2N5985	90	20–120	4.0	80	90	8.0	3.64	3.46
2N6301	80	750–1K	4.0	80	75	8.0	2.48	2.36
MJE6044	90	1K–20K	4.0	80	75	8.0	3.01	2.86
2N6056	11	750–18K	4.0	80	100	8.0	2.48	2.36
2N6044	221A	1K–10K	4.0	80	75	8.0	2.79	2.65
TIP101	221A	1K–20K	3.0	80	80	8.0	1.61	1.54
2N6045	221A	1K–10K	3.0	100	75	8.0	3.01	2.86
TIP102	221A	1K–20K	3.0	100	80	8.0	1.91	1.82
MJE6045	90	1K–20K	4.0	100	75	8.0	3.43	3.27
TIP122	221A	1K min.	3.0	100	75	8.0	2.19	2.08
MJE-15028	221A	20 min.	4.0	120	50	8.0	2.27	2.17
MJ4247	11	40 min.	3.0	120	90	8.0	3.27	3.11
MJ3247	80	40 min.	3.0	120	75	8.0	2.38	2.26
MJ4248	11	40 min.	3.0	150	90	8.0	3.56	3.39
MJ3248	80	40 min.	3.0	150	75	8.0	2.67	2.54
MJE-15030	221A	20 min.	4.0	150	50	8.0	2.58	2.46
2N6306	11	15–75	3.0	250	125	8.0	3.86	3.67
MJE5740	221A	200 min.	4.0	300	80	8.0	1.97	1.87
2N6307	11	15–75	3.0	300	125	8.0	4.75	4.52
2N6544	11	7–35	5.0	300	125	8.0	6.34	6.03
MJE-13006	221A	6–30	5.0	300	80	8.0	4.09	3.90
2N6308	11	12–60	3.0	350	125	8.0	6.83	6.51
MJE5741	221A	200 min.	4.0	350	80	8.0	2.27	2.17
MJE-13007	221A	6–30	5.0	400	80	8.0	5.15	4.90
2N6545	11	7–35	5.0	400	125	8.0	7.63	7.26
MJ13080	11	8 min.	5.0	400	150	8.0	6.34	6.03
MJE5742	221A	200 min.	4.0	400	80	8.0	2.67	2.54
MJ13081	11	8 min.	5.0	450	150	8.0	7.63	7.26
MJ16006	11	5 min.	8.0	450	150	8.0	9.50	9.05
MJ16008	11	7 min.	8.0	450	150	8.0	11.44	10.89
MJ10011	11	20 min.	4.0	1400	80	8.0	6.94	6.61
MJ12005	11	5 min.	5.0	1500	100	8.0	7.23	6.89
2N6383	11	1K–20K	5.0	40	100	10.0	2.21	2.11
MJE2801	90	25–100	3.0	60	90	10.0	2.64	2.51
2N3713	11	15 min.	3.0	60	150	10.0	2.08	1.98
2N3715	11	30 min.	3.0	60	150	10.0	2.08	1.98
MJE3055	90	20–70	4.0	60	90	10.0	2.64	2.51
2N5877	11	20–100	4.0	60	150	10.0	2.08	1.98
MJ3000	11	1K min.	5.0	60	150	10.0	4.06	3.87
2N6384	11	1K–20K	5.0	60	100	10.0	2.48	2.36
MJE-3055T	221A	20–70	4.0	60	75	10.0	1.29	1.23
2N6387	221A	1K–20K	5.0	60	65	10.0	1.54	1.47
SE9300	221A	1K min.	4.0	60	70	10.0	2.57	2.44
MJE2801T	221A	25–100	3.0	60	75	10.0	1.29	1.23
2N6385	11	1K–20K	5.0	80	100	10.0	2.67	2.54
2N6388	221A	1K–20K	5.0	80	65	10.0	1.73	1.65
D44H10	221A	20 min.	4.0	80	50	10.0	2.73	2.60
D44H11	221A	40 min.	4.0	80	50	10.0	2.98	2.84
SE9301	221A	1K min.	4.0	80	70	10.0	2.79	2.65
2N3714	11	15 min.	3.0	80	150	10.0	2.27	2.17
2N3716	11	30 min.	3.0	80	150	10.0	2.27	2.17
2N5878	11	20–100	4.0	80	150	10.0	2.57	2.44
MJ3001	11	1K min.	5.0	80	150	10.0	4.75	4.52

POWER TRANSISTOR LISTING CONTINUED ON NEXT PAGE

SILICON POWER TRANSISTORS (Cont'd)

For illustrations, see a previous page.

Motorola Type	Case	h_{FE} at I_C		BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each	
		Min.-Max.	A				1–9	10–49
NPN (CONTINUED)								
2N5632	11	25–100	5.0	100	150	10	$ 2.98	$ 2.84
SE9302	221A	1K min.	4.0	100	70	10	3.01	2.86
2N5633	11	20–80	5.0	120	150	10	3.56	3.39
2N5634	11	15–60	5.0	140	150	10	4.36	4.15
2N3442	11	20–70	4.0	140	117	10	2.19	2.08
MJ11018	11	100 min.	10	150	200	10	9.50	9.05
MJ11020	11	100 min.	10	200	200	10	10.34	9.85
MJ11022	11	100 min.	10	250	200	10	11.76	11.20
MJ15011	11	20–100	2.0	250	200	10	4.75	4.52
MJ3041	11	250 min.	2.5	300	175	10	9.83	9.36
MJ413	11	20–80	0.5	325	125	10	3.74	3.56
MJ423	11	30–90	1.0	325	125	10	6.09	5.80
MJ431	11	15–35	2.5	325	125	10	7.85	7.47
MJ9000	11	4 min.	6.0	325	125	10	10.70	10.19
MJ3042	11	250 min.	2.5	350	175	10	12.10	11.52
MJ10002	11	30–300	5.0	350	150	10	6.44	6.13
MJ10006	11	30–300	5.0	350	150	10	7.92	7.54
MJ13014	11	8–20	5.0	350	150	10	8.51	8.10
MJ10003	11	30–300	5.0	400	150	10	7.92	7.54
MJ10007	11	30–300	5.0	400	150	10	9.40	8.95
MJ10012	11	100–2K	6.0	400	175	10	5.44	5.18
MJ13015	11	8–20	5.0	400	150	10	9.68	9.22
SDT13304	11	10–40	5.0	450	125	10	10.85	10.33
SDT13305	11	10–40	5.0	500	125	10	12.83	12.22
MJ10013	11	10–250	10	550	175	10	11.88	11.31
MJ10014	11	10–250	10	600	175	10	14.85	14.15
MJ8504	11	7.5 min.	1.5	700	175	10	7.63	7.26
MJ8505	11	7.5 min.	1.5	800	175	10	8.42	8.02
MJ12010	11	4.2	5.0	950	100	10	6.15	5.85
2N6569	11	15–200	4.0	40	100	12	1.17	1.12
2N5989	90	20–120	6.0	40	100	12	3.56	3.39
2N5990	90	20–120	6.0	60	100	12	3.96	3.77
2N6057	11	750–18K	6.0	60	150	12	3.67	3.49
TIP140	340	500 min.	10	60	125	12	3.12	2.98
TIP141	340	500 min.	10	80	125	12	3.56	3.39
2N5991	90	20–120	6.0	80	100	12	4.36	4.15
2N6058	11	750–18K	6.0	80	150	12	3.96	3.77
2N6059	11	750–18K	6.0	100	150	12	4.65	4.43
TIP142	340	500 min.	10	100	125	12	4.24	4.04
MJE13008	221A	6–30	8.0	300	100	12	6.53	6.22
MJE13009	221A	6–30	8.0	400	100	12	7.82	7.44
MJE1660	90	20–100	5.0	40	90	15	3.43	3.27
2N6486	221A	20–150	5.0	40	75	15	1.67	1.59
2N6487	221A	20–150	5.0	60	75	15	1.95	1.86
2N3055	11	20–70	4.0	60	115	15	1.51	1.44
2N6576	11	2K–20K	4.0	60	120	15	1.70	1.62
MJE1661	90	20–100	5.0	60	90	15	3.86	3.67
2N5881	11	20–100	6.0	60	160	15	2.48	2.36
2N3055A	11	20–70	4.0	60	115	15	2.19	2.08
2N6488	221A	20–150	5.0	80	75	15	2.39	2.28
2N5882	11	20–100	6.0	80	160	15	2.77	2.64
2N6577	11	2K–20K	4.0	90	120	15	1.98	1.89
2N6578	11	2K–20K	4.0	120	120	15	2.27	2.17
MJ15015	11	20–70	4.0	120	180	15	2.43	2.32
MJ15001	11	25–150	4.0	140	200	15	4.36	4.15
2N6249	11	10–50	10	200	175	15	7.30	6.95
2N6250	11	8–50	10	275	175	15	8.65	8.24
2N6546	11	6–30	10	300	175	15	10.19	9.71
2N6251	11	6–50	10	350	175	15	8.78	8.37
2N6547	11	6–30	10	400	175	15	12.48	11.88
MJ13090	11	8 min.	10	400	175	15	10.19	9.71
MJ13091	11	8 min.	10	400	175	15	12.48	11.88
MJ16010	11	5 min.	15	450	175	15	15.31	14.58
MJ16012	11	7 min.	15	450	175	15	18.71	17.82
MJ10013	11	10–250	10	550	175	15	11.88	11.31
MJ10014	11	10–250	10	600	175	15	14.85	14.15
MJ4033	11	1K min.	10	60	150	16	6.44	6.13
MJ4034	11	1K min.	10	80	150	16	7.13	6.79
2N5629	11	25–100	8.0	100	200	16	5.54	5.28
MJ4035	11	1K min.	10	100	150	16	8.31	7.92
MJE4340	340	25–100	5.0	100	125	16	4.96	4.72
MJE4341	340	25–100	5.0	120	125	16	5.94	5.66
2N5630	11	20–80	8.0	120	200	16	6.63	6.31
2N3773	11	15–60	8.0	140	150	16	4.22	4.02
2N5631	11	15–60	8.0	140	200	16	7.33	6.98
MJE4342	340	25–100	5.0	140	125	16	6.73	6.41
2N6257	11	15–75	8.0	40	150	20	2.58	2.46
2N3772	11	15–60	10	60	150	20	4.25	4.05
2N6282	11	750–18K	10	60	160	20	4.96	4.72
2N5039	11	20–100	10	75	140	20	5.44	5.18
2N5303	11	15–60	10	80	200	20	3.86	3.67
2N6283	11	750–18K	10	80	160	20	5.35	5.10
2N5038	11	20–100	12	90	140	20	6.44	6.13
2N6284	11	750–18K	10	100	160	20	5.94	5.66
MJ15003	11	25–150	5.0	140	250	20	6.31	6.01
MJ13330	11	8–40	10	200	175	20	6.94	6.61
MJ13331	11	8–40	10	250	175	20	8.42	8.02
MJ10000	11	40–400	10	350	175	20	8.71	8.30
MJ10004	11	40–400	10	350	175	20	12.38	11.79
MJ13332	11	10–60	5.0	350	175	20	8.81	8.39
MJ13333	11	10–60	5.0	400	175	20	10.79	10.28
MJ10001	11	40–400	10	400	175	20	10.59	10.08

Motorola Type	Case	h_{FE} at I_C		BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each	
		Min.-Max.	A				1–9	10–49
NPN (CONTINUED)								
MJ10005	11	40–400	10	400	175	20	$15.15	$14.43
MJ13334	11	10–60	5.0	450	175	20	11.88	11.31
MJ10008	11	30–300	10	450	175	20	12.38	11.79
MJ10009	11	30–300	10	500	175	20	15.15	14.43
MJ13335	11	10–60	5.0	500	175	20	13.56	12.92
MJ10024	11	50–600	5.0	750	250	20	16.34	15.56
MJ10025	11	50–600	5.0	850	250	20	19.30	18.38
TIP35	340	10–50	15	40	125	25	3.18	3.03
TIP35A	340	10–50	15	60	125	25	3.43	3.27
2N5885	11	20–100	10	60	200	25	4.25	4.05
2N5886	11	20–100	10	80	200	25	4.75	4.52
TIP35B	340	10–50	15	80	125	25	3.68	3.51
TIP35C	340	10–50	15	100	125	25	4.22	4.02
2N6338	11	30–120	10	100	200	25	8.81	8.39
2N6339	11	30–120	10	120	200	25	10.40	9.90
2N6340	11	30–120	10	140	200	25	18.90	18.00
2N6341	11	30–120	10	150	200	25	21.48	20.46
MJ15022	11	15–60	8.0	200	250	25	5.94	5.66
MJ15024	11	15–60	8.0	250	250	25	6.94	6.61
2N3771	11	15–60	15	40	150	30	3.92	3.73
2N5301	11	15–60	15	40	200	30	3.07	2.92
2N5302	11	15–60	15	60	200	30	3.46	3.30
2N6326	11	6–30	30	60	200	30	3.27	3.11
MJ11012	11	1K min.	20	60	200	30	7.92	7.54
2N6327	11	6–30	30	80	200	30	3.67	3.49
MJ11014	11	1K min.	20	90	200	30	8.61	8.20
MJ802	11	25–100	7.5	100	200	30	4.46	4.25
2N6328	11	6–30	30	100	200	30	4.16	3.97
MJ11016	11	1K min.	20	120	200	30	9.79	9.33
MJ10022	11	50–600	10	350	250	40	16.34	15.56
MJ10023	11	50–600	10	400	250	40	19.30	18.38
2N5685	11	15–60	25	60	300	50	12.55	11.95
2N5685	197	15–60	25	60	300	50	12.55	11.95
MJ11028	197	400 min.	50	60	300	50	9.90	9.43
2N5686	197	15–60	25	80	300	50	17.82	16.97
2N5686	11	15–60	25	80	300	50	17.82	16.97
MJ11030	11	400 min.	50	90	300	50	10.59	10.08
2N6274	197	30–120	20	100	250	50	21.78	20.74
MJ11032	197	400 min.	50	120	300	50	11.88	11.31
2N6275	197	30–120	20	120	250	50	26.03	24.79
2N6276	197	30–120	20	140	250	50	34.44	32.80
2N6277	197	30–120	20	150	250	50	47.11	44.87
MJ10015	197	10 min.	40	400	250	50	27.32	26.02
MJ10016	197	10 min.	40	500	250	50	33.36	31.77
MJ10020	11	75 min.	15	200	250	60	16.34	15.56
MJ10021	11	75 min.	15	250	250	60	19.30	18.38
MJ14000	197	15–100	50	60	300	70	17.82	16.97
MJ14002	197	15–100	50	80	300	70	19.80	18.85
MJ10050	11	35 min.	50	850	500	75	68.08	64.84
MJ10100	11	50 min.	100	450	500	150	68.08	64.84
MJ10200	11	75 min.	200	250	500	300	68.08	64.84
PNP								
TIP62	221A	15–100	0.5	40	15	0.5	$ .84	$ .80
TIP62A	221A	15–100	0.5	60	15	0.5	.90	.85
TIP62B	221A	15–100	0.5	80	15	0.5	.97	.92
TIP62C	221A	15–100	0.5	100	15	0.5	1.06	1.01
2N4391	79	20 min.	0.03	250	5	0.5	1.32	1.26
2N4929	79	20 min.	0.05	150	5	0.5	8.36	7.96
MJ4645	79	20 min.	0.5	200	5	0.5	15.04	14.33
2N4930	79	20 min.	0.05	200	20	0.5	9.85	9.39
MDS60	306	30 min.	0.03	300	10	0.5	2.27	2.17
MPSU60	152	30 min.	0.03	300	10	0.5	2.27	2.17
MJE350	77	30–240	0.05	300	20	0.5	2.19	2.08
MJ4646	79	20 min.	0.5	300	5	0.5	16.23	15.46
MJ4647	79	20 min.	0.5	400	5	0.5	19.90	18.95
MPSU52	152	30 min.	0.5	40	10	0.8	1.09	1.03
D41D1	306	10 min.	1.0	30	10	1.0	.90	.85
D41D2	306	20 min.	1.0	30	10	1.0	1.20	1.15
2N4918	77	20–100	0.5	40	30	1.0	1.54	1.47
2N3244	79	50–150	0.5	40	5	1.0	4.84	4.61
2N3467	79	40–120	0.5	40	5	1.0	3.89	3.70
2N4898	80	20–100	0.5	40	25	1.0	1.88	1.79
TIP30	221A	15–75	1.0	40	30	1.0	.87	.82
D41D4	306	10 min.	1.0	45	10	1.0	1.12	1.06
D41D5	306	10 min.	1.0	45	10	1.0	1.36	1.30
2N3245	79	30–90	0.5	50	5	1.0	5.13	4.89
2N3468	79	40–120	0.5	50	5	1.0	4.25	4.05
MM4030	79	25–40	0.5	60	7	1.0	1.54	1.47
MM4032	79	70–100	0.5	60	7	1.0	1.76	1.68
2N4899	80	20–100	0.5	60	25	1.0	2.08	1.98
2N6554	306	25 min.	0.5	60	10	1.0	1.03	.98
D41D7	306	10 min.	1.0	60	10	1.0	1.20	1.15
D41D8	306	10 min.	1.0	60	10	1.0	1.57	1.49
TIP30A	221A	15–75	1.0	60	30	1.0	.92	.88
2N4919	77	20–100	0.5	60	30	1.0	1.80	1.72
MM4036	79	20–40	0.5	65	7	1.0	2.71	2.58
D41D10	306	10 min.	1.0	75	10	1.0	1.47	1.40
D41D11	306	10 min.	1.0	75	10	1.0	1.66	1.58
D41D13	306	50–150	0.1	75	10	1.0	1.20	1.15
D41D14	306	50–150	0.1	75	10	1.0	1.53	1.45
MM4033	79	70–100	0.5	80	7	1.0	2.27	2.17
2N4900	80	20–100	0.5	80	25	1.0	2.35	2.23

POWER TRANSISTOR LISTING CONTINUED ON NEXT PAGE

SILICON POWER TRANSISTORS (Cont'd)

For illustrations, see a previous page.

Motorola Type	Case	h_{FE} at I_C		BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each	
		Min.-Max.	A				1-9	10-49
PNP (CONTINUED)								
2N6555	306	25 min.	0.5	80	10	1.0	$ 1.13	$ 1.08
TIP30B	221A	15–75	1.0	80	30	1.0	1.00	.95
2N4920	77	20–100	0.5	80	30	1.0	2.08	1.98
2N5679	79	40–150	0.25	100	10	1.0	2.01	1.91
2N6556	306	25 min.	0.5	100	10	1.0	1.23	1.17
TIP30C	221A	15–75	1.0	100	30	1.0	1.09	1.03
2N5680	79	40–150	0.25	120	10	1.0	2.01	1.91
2N6420	80	40–200	0.5	175	35	1.0	1.86	1.77
2N5415	79	30 min.	0.05	200	5	1.0	2.02	1.93
2N6424	80	40–200	0.1	225	20	1.0	2.27	2.17
2N5344	80	25–100	0.5	250	40	1.0	10.40	9.90
2N6425	80	40–200	0.1	300	20	1.0	2.64	2.51
2N5345	80	25–100	0.5	300	40	1.0	12.67	12.07
2N5416	79	30 min.	0.05	300	5	1.0	2.74	2.61
2N3762	79	30–120	1.0	40	4	1.5	8.87	8.45
2N3763	79	20–80	1.0	60	4	1.5	18.18	17.32
MPSU51	152	50 min.	1.0	30	10	2.0	1.03	.98
D41E1	306	10 min.	1.0	30	8	2.0	1.00	.95
D41K1	306	1K min.	1.5	30	10	2.0	1.23	1.17
D41K3	306	1K min.	1.0	30	10	2.0	1.19	1.13
MPSU51A	152	50 min.	1.0	40	10	2.0	1.13	1.08
MPSU95	152	4K min.	1.0	40	10	2.0	1.69	1.61
D41K2	306	1K min.	1.5	50	10	2.0	1.39	1.33
D41K4	306	1K min.	1.0	50	10	2.0	1.31	1.24
D41E5	306	10 min.	1.0	60	8	2.0	1.20	1.15
TIP115	221A	500 min.	2.0	60	50	2.0	1.44	1.37
MPSU55	152	60 min.	0.25	60	10	2.0	1.00	.95
MPSU56	152	60 min.	0.25	80	10	2.0	1.09	1.03
D41E7	306	10 min.	1.0	80	8	2.0	1.54	1.47
TIP116	221A	500 min.	2.0	80	50	2.0	1.50	1.43
MM5007	79	50–250	0.25	100	8	2.0	2.49	2.37
MPSU57	152	30 min.	0.25	100	10	2.0	1.19	1.13
MJE271	77	1.5K min.	0.12	100	15	2.0	1.48	1.41
TIP117	221A	500 min.	2.0	100	50	2.0	1.47	1.40
2N6211	80	10–100	1.0	225	35	2.0	2.48	2.36
2N6421	80	25–100	1.0	250	35	2.0	2.32	2.21
2N6423	80	30–150	0.75	300	35	2.0	2.51	2.39
2N6422	80	25–100	1.0	300	35	2.0	2.42	2.31
2N6212	80	10–100	1.0	300	35	2.0	2.98	2.84
2N6213	80	10–100	1.0	350	35	2.0	3.46	3.30
MJE370	77	25 min.	1.0	30	25	3.0	1.41	1.34
2N4234	79	30–150	0.25	40	6	3.0	1.83	1.75
MDS76	306	30 min.	1.0	40	12.5	3.0	1.25	1.19
MJE170	77	50–250	0.1	40	12.5	3.0	1.13	1.08
MJE32	77	25 min.	1.0	40	40	3.0	1.06	1.01
TIP32	221A	25 min.	1.0	40	40	3.0	.98	.94
2N3719	31	25–180	1.0	40	6.0	3.0	7.52	7.16
2N3867	31	40–200	1.5	40	6.0	3.0	13.36	12.72
MJE171	77	50–250	0.1	60	12.5	3.0	1.17	1.12
MJE32A	77	25 min.	1.0	60	40	3.0	1.12	1.06
TIP32A	221A	25 min.	1.0	60	40	3.0	1.04	.99
2N3720	31	25–180	1.0	60	6.0	3.0	10.10	9.62
2N3868	31	30–150	1.5	60	6.0	3.0	14.55	13.85
2N4235	79	30–150	0.25	60	6	3.0	2.13	2.03
MDS77	306	30 min.	1.0	60	12.5	3.0	1.35	1.29
2N4236	79	30–150	0.25	80	6	3.0	2.42	2.31
MJE172	77	50–250	0.1	80	12.5	3.0	1.29	1.23
MJE32B	77	25 min.	1.0	80	40	3.0	1.20	1.15
TIP32B	221A	25 min.	1.0	80	40	3.0	1.14	1.09
2N6303	31	30–150	1.5	80	6.0	3.0	19.50	18.57
MJE32C	77	25 min.	1.0	100	40	3.0	1.26	1.20
TIP32C	221A	25 min.	1.0	100	40	3.0	1.20	1.15
2N6034	77	750–18K	2.0	40	40	4.0	2.42	2.31
MJE371	77	40 min.	1.0	40	40	4.0	1.79	1.70
2N4898	80	20–100	0.5	40	25	4.0	1.88	1.79
MJE3310	77	1K min.	1.0	40	15	4.0	1.70	1.62
2N5193	77	25–100	1.5	40	40	4.0	1.69	1.61
2N6124	221A	25–100	1.5	45	40	4.0	1.09	1.03
2N3740	80	30–100	0.25	60	25	4.0	2.38	2.26
2N4899	80	20–100	0.5	60	25	4.0	2.08	1.98
2N6049	80	25–100	0.5	60	75	4.0	2.35	2.23
2N5194	77	25–100	1.5	60	40	4.0	1.97	1.87
MJE700	77	750 min.	1.5	60	40	4.0	2.02	1.93
2N6296	80	750–18K	2.0	60	50	4.0	2.67	2.54
MJE3311	77	1K min.	1.0	60	15	4.0	1.91	1.82
MJE701	77	750 min.	2.0	60	40	4.0	2.24	2.14
2N6035	77	750–18K	2.0	60	40	4.0	2.68	2.56
2N6125	221A	25–100	1.5	60	40	4.0	1.16	1.10
MJE700T	221A	750 min.	1.5	60	40	4.0	1.79	1.70
MJE701T	221A	750 min.	2.0	60	40	4.0	1.88	1.79
2N3740A	80	30–100	0.25	60	25	4.0	2.87	2.74
2N3741A	80	30–100	0.25	80	25	4.0	3.46	3.30
MJE251	77	40–120	0.2	80	15	4.0	1.97	1.87
2N3741	80	30–100	0.25	80	25	4.0	2.67	2.54
2N4900	80	20–100	0.5	80	25	4.0	2.35	2.23
MJE3312	77	1K min.	1.0	80	15	4.0	2.11	2.01
2N5195	77	25–100	1.5	80	40	4.0	2.38	2.26
MJE702	77	750 min.	1.5	80	40	4.0	2.33	2.22
2N6126	221A	20–80	1.5	80	40	4.0	1.25	1.19
2N6297	80	750–18K	2.0	80	50	4.0	2.98	2.84
MJE703	77	750 min.	2.0	80	40	4.0	2.70	2.57
2N6036	77	750–18K	2.0	80	40	4.0	3.14	2.99
MJE702T	221A	750 min.	1.5	80	40	4.0	2.02	1.93
MJE703T	221A	750 min.	2.0	80	40	4.0	2.27	2.17
PNP (CONTINUED)								
MJE253	77	40–120	0.2	100	15	4.0	$ 2.20	$ 2.10
FT417	221A	20 min.	3.0	100	40	4.0	2.08	1.98
FT417A	221A	20 min.	3.0	120	40	4.0	2.24	2.14
FT417B	221A	20 min.	3.0	140	40	4.0	2.43	2.32
MJE210	77	45–180	2.0	25	15	5.0	1.54	1.47
2N6312	80	25–100	1.5	40	75	5.0	1.63	1.55
2N5974	90	20–120	2.5	40	75	5.0	2.71	2.58
2N4913	11	25–100	2.5	40	87.5	5.0	1.48	1.41
MJE105	90	25–100	2.0	50	65	5.0	3.46	3.30
2N4902	11	20–180	1.0	60	87.5	5.0	3.17	3.02
2N6313	80	25–100	1.5	60	75	5.0	1.88	1.79
MJ8100	79	25–180	2.0	60	10	5.0	14.36	13.67
2N5975	90	25–100	2.5	60	75	5.0	3.05	2.90
2N4905	11	25–100	2.5	60	87.5	5.0	3.27	3.11
MJE1090	90	750 min.	3.0	60	70	5.0	4.25	4.05
MJE1091	90	750 min.	4.0	60	70	5.0	4.59	4.37
TIP125	221A	1K min.	3.0	60	65	5.0	1.82	1.73
TIP126	221A	1K min.	3.0	80	65	5.0	2.04	1.94
2N4903	11	20–180	1.0	80	87.5	5.0	3.46	3.30
2N6314	80	25–100	1.5	80	75	5.0	2.38	2.26
2N6190	79	30–120	2.0	80	6	5.0	12.96	12.35
2N6191	79	60–240	2.0	80	6	5.0	19.00	18.10
2N5976	90	20–120	2.5	80	75	5.0	3.61	3.44
2N4906	11	25–100	2.5	80	87.5	5.0	3.56	3.39
MJE1092	90	750 min.	3.0	80	70	5.0	4.91	4.68
MJE1093	90	750 min.	4.0	80	70	5.0	5.38	5.13
2N6192	79	30–120	2.0	100	10	5.0	16.92	16.12
2N6193	79	60–240	2.0	100	6	5.0	21.78	20.74
TIP127	221A	1K min.	3.0	100	75	5.0	2.33	2.22
MJ4401	80	12–60	1.5	400	100	5.0	4.36	4.15
TIP42	221A	15–75	3.0	40	65	6.0	1.31	1.24
TIP42A	221A	15–75	3.0	60	65	6.0	1.45	1.38
TIP42B	221A	15–75	3.0	80	65	6.0	1.57	1.49
TIP42C	221A	15–75	3.0	100	65	6.0	1.76	1.68
2N6226	11	25–100	3.0	100	150	6.0	1.69	1.61
2N6227	11	20–80	3.0	120	150	6.0	1.88	1.79
2N6228	11	15–60	3.0	140	150	6.0	2.19	2.08
MJ15012	11	20–100	2.0	250	200	6.0	4.75	4.52
2N6111	221A	30–150	3.0	30	40	7.0	1.07	1.02
2N6109	221A	30–150	2.5	50	40	7.0	1.14	1.09
SE9400	221A	1K min.	4.0	60	60	7.0	2.86	2.72
2N6317	80	20–100	2.5	60	90	7.0	2.10	2.00
2N6132	221A	20–100	2.5	40	50	7.0	1.26	1.20
2N6107	221A	30–150	3.0	70	40	7.0	1.14	1.09
2N6318	80	20–100	2.5	80	90	7.0	2.19	2.08
2N6133	221A	20–100	2.5	60	50	7.0	1.41	1.34
2N6134	221A	20–100	2.5	80	50	7.0	1.54	1.47
2N6188	160	30–120	2.0	100	60	7.0	40.59	38.66
2N5980	90	20–120	4.0	40	90	8.0	3.49	3.32
2N6666	221A	1K–20K	3.0	40	65	8.0	1.58	1.51
2N6040	221A	1K–10K	4.0	60	75	8.0	2.86	2.72
TIP105	221A	1K–20K	3.0	60	80	8.0	1.61	1.54
MJ900	11	1K min.	3.0	60	90	8.0	2.48	2.36
2N5981	90	20–120	4.0	60	90	8.0	3.96	3.77
2N6298	80	750–18K	4.0	60	75	8.0	2.77	2.64
2N6053	11	750–18K	4.0	60	100	8.0	2.87	2.74
MJE6040	90	1K–20K	4.0	60	75	8.0	3.07	2.92
MJ901	11	1K min.	3.0	80	90	8.0	2.87	2.74
2N5982	90	20–120	4.0	80	90	8.0	4.71	4.48
2N6299	80	750–18K	4.0	80	75	8.0	2.98	2.84
2N6054	11	750–18K	4.0	80	100	8.0	3.37	3.21
MJE6041	90	1K–20K	4.0	80	75	8.0	3.46	3.30
2N6041	221A	1K–10K	4.0	80	75	8.0	3.08	2.93
TIP106	221A	1K–20K	3.0	80	80	8.0	1.77	1.69
2N6042	221A	1K–10K	3.0	100	75	8.0	3.37	3.21
TIP107	221A	1K–20K	3.0	100	80	8.0	2.07	1.97
MJE6042	90	1K–20K	4.0	100	75	8.0	3.97	3.78
MJE-15029	221A	20 min.	4.0	120	50	8.0	2.42	2.31
MJ3237	80	40 min.	3.0	120	75	8.0	2.58	2.46
MJ4237	11	40 min.	3.0	120	90	8.0	3.46	3.30
MJ3238	80	40 min.	3.0	150	75	8.0	2.87	2.74
MJ4238	11	40 min.	3.0	150	90	8.0	3.77	3.59
MJE-15031	221A	20 min.	4.0	150	50	8.0	2.64	2.51
MJ6502	11	15 min.	2.0	250	125	8.0	7.42	7.07
MJE5850	221A	15 min.	2.0	300	80	8.0	5.65	5.38
MJE5851	221A	15 min.	2.0	350	80	8.0	6.83	6.51
MJE5852	221A	15 min.	2.0	400	80	8.0	7.92	7.54
MJ6503	11	15 min.	2.0	400	125	8.0	9.61	9.15
2N6648	11	1K–20K	5.0	40	100	10.0	2.38	2.26
2N6649	11	1K–20K	5.0	60	100	10.0	2.67	2.54
2N6667	221A	1K–20K	5.0	60	65	10.0	1.72	1.63
MJE-2901T	221A	25–100	3.0	60	75	10.0	1.42	1.36
MJE-2955T	221A	20–70	4.0	60	75	10.0	1.42	1.36

POWER TRANSISTOR LISTING CONTINUED ON NEXT PAGE

SILICON POWER TRANSISTORS (Cont'd)

For illustrations, see a previous page.

Motorola Type	Case	h_{FE} at I_C Min.-Max.	h_{FE} at I_C A	BV_{CEO} Volts	P_D W	Max. I_C Cont. Amps	Net Each 1-9	Net Each 10-49
PNP (CONTINUED)								
MJ6700	160	25–180	2.0	60	60	10	$40.62	$38.68
MJE2901	90	25–100	3.0	60	90	10	3.67	3.49
2N3789	11	15 min.	3.0	60	150	10	2.38	2.26
2N3791	11	30 min.	3.0	60	150	10	1.88	1.79
MJE2955	90	20–70	4.0	60	90	10	3.67	3.49
2N5875	11	20–100	4.0	60	150	10	1.88	1.79
MJ2500	11	1K min.	5.0	60	150	10	4.96	4.72
2N3790	11	15 min.	3.0	80	150	10	2.67	2.54
2N3792	11	30 min.	3.0	80	150	10	1.98	1.89
2N5876	11	20–100	4.0	60	150	10	2.55	2.43
MJ2501	11	1K min.	5.0	80	150	10	5.54	5.28
2N6650	11	1K–20K	5.0	80	100	10	2.87	2.74
2N6186	160	30–120	2.0	80	60	10	36.63	34.88
2N6187	160	60–240	2.0	80	60	10	40.59	38.66
D45H10	221A	20 min.	4.0	80	50	10	3.01	2.86
D45H11	221A	40 min.	4.0	80	50	10	3.18	3.03
2N6668	221A	1K–20K	5.0	80	65	10	1.92	1.83
SE9401	221A	100 min.	4.0	80	70	10	3.08	2.93
2N6189	160	60–240	2.0	100	60	10	54.45	51.85
SE9402	221A	1K min.	4.0	100	70	10	3.37	3.21
2N6229	11	25–100	5.0	100	150	10	2.98	2.84
2N6230	11	20–80	5.0	120	150	10	3.56	3.39
2N6231	11	15–60	5.0	140	150	10	4.36	4.15
MJ11017	11	100 min.	10	150	200	10	10.69	10.18
MJ11019	11	100 min.	10	200	200	10	11.64	11.09
MJ11021	11	100 min.	10	250	200	10	13.30	12.67
MJ15012	11	20–100	2.0	250	200	10	4.75	4.52
2N5986	90	20–120	6.0	40	100	12	3.77	3.59
2N6594	11	15–200	4.0	40	100	12	1.17	1.12
2N5987	90	20–120	6.0	60	100	12	4.16	3.97
2N6050	11	750–18K	6.0	60	150	12	4.46	4.25
TIP145	340	500 min.	10	60	125	12	3.62	3.45
TIP146	340	500 min.	10	80	125	12	4.08	3.88
TIP147	340	500 min.	10	100	125	12	4.83	4.60
2N5988	90	20–120	6.0	80	100	12	4.56	4.34
2N6051	11	750–18K	6.0	80	150	12	4.96	4.72
2N6052	11	750–18K	6.0	100	150	12	5.54	5.28
MJE1290	90	20–100	5.0	40	90	15	3.96	3.77
2N6489	221A	20–150	5.0	40	75	15	1.88	1.79
2N6490	221A	20–150	5.0	60	75	15	2.13	2.03
MJ2955	11	20–70	4.0	60	115	15	1.56	1.48
MJE1291	90	20–100	5.0	60	90	15	4.65	4.43
2N5879	11	20–100	6.0	60	160	15	2.48	2.36
MJ2955A	11	20–70	4.0	60	115	15	2.20	2.10
2N5880	11	20–100	6.0	80	160	15	2.77	2.64
2N6491	221A	20–150	5.0	80	75	15	2.57	2.44
PNP (CONTINUED)								
MJ15016	11	20–70	4.0	120	180	15	$ 2.58	$ 2.46
MJ15002	11	25–150	4.0	140	200	15	4.36	4.15
MJ4030	11	1K min.	10	60	150	16	7.42	7.07
MJ4031	11	1K min.	10	80	150	16	8.21	7.82
2N6029	11	25–100	8.0	100	200	16	6.94	6.61
MJ4032	11	1K min.	10	100	150	16	9.61	9.15
MJE4350	340	25–100	5.0	100	125	16	5.94	5.66
MJE4351	340	25–100	5.0	120	125	16	6.94	6.61
2N6030	11	20–80	8.0	120	200	16	7.33	6.98
2N6609	11	15–60	8.0	140	150	16	5.13	4.89
2N6031	11	15–60	8.0	140	200	16	8.42	8.02
MJE4352	340	25–100	5.0	140	125	16	7.73	7.36
2N6285	11	750–18K	10	60	160	20	5.94	5.66
2N5745	11	15–60	10	80	200	20	3.86	3.67
2N6286	11	750–18K	10	80	160	20	6.34	6.03
2N6287	11	750–18K	10	100	160	20	6.94	6.61
MJ15004	11	25–150	5.0	140	250	20	6.31	6.01
TIP36	340	10–50	15	40	125	25	3.43	3.27
TIP36A	340	10–50	15	60	125	25	3.68	3.51
2N5883	11	20–100	10	60	200	25	4.85	4.62
2N5884	11	20–100	10	80	200	25	5.94	5.66
2N6436	11	20–80	10	80	200	25	10.40	9.90
TIP36B	340	10–50	15	80	125	25	3.96	3.77
TIP36C	340	10–50	15	100	125	25	4.30	4.09
2N6437	11	20–80	10	100	200	25	16.83	16.03
2N6438	11	20–80	10	120	200	25	21.48	20.46
MJ15023	11	15–60	8.0	200	250	25	6.34	6.03
MJ15025	11	15–60	8.0	250	250	25	7.33	6.98
2N4398	11	15–60	15	40	200	30	4.46	4.25
2N4399	11	15–60	15	60	200	30	5.94	5.66
MJ11011	11	1K min.	20	60	200	30	8.92	8.49
2N6329	11	6–30	30	60	200	30	3.67	3.49
2N6330	11	6–30	30	80	200	30	4.06	3.87
MJ11013	11	1K min.	20	90	200	30	9.71	9.25
2N6331	11	6–30	30	100	200	30	4.46	4.25
MJ4502	11	25–100	7.5	100	200	30	4.46	4.25
MJ11015	11	1K min.	20	120	200	30	11.09	10.56
2N5683	197	15–60	25	60	300	50	19.80	18.85
MJ11029	197	400 min.	50	60	300	50	10.90	10.38
2N5684	197	15–60	25	80	300	50	23.10	22.00
2N6377	197	30–120	20	80	250	50	23.86	22.72
MJ11031	11	400 min.	50	90	300	50	11.69	11.13
2N6378	197	30–120	20	100	250	50	32.36	30.82
2N6379	197	30–120	20	120	250	50	47.11	44.87
MJ11033	197	400 min.	50	120	300	50	13.07	12.44
MJ14001	197	15–100	50	60	300	70	23.75	22.62
MJ14003	197	15–100	50	80	300	70	25.73	24.51

GREENLEE CHASSIS PUNCHES

Greenlee Series 730 Chassis Punches—Cut clean, accurate holes in radio chassis for connectors, tube sockets and other receptacles. Operates simply with ordinary wrench for drive power. No reaming or filing necessary, the hole is smooth and perfect. Will cut holes in chassis up to 16-gauge metal. Average Shipping Weight. 1½ lbs.

Part No.	Hole Size	Cap Screw	Net Each	Part No.	Hole Size	Cap Screw	Net Each
730-½	½"	¼"	$8.50	730-1¼	¼"	⅜"	$ 9.70
730-9/16	9/16"	¼"	8.50	730-15/16	15/16"	⅜"	11.90
730-⅝	⅝"	¼"	8.50	730-1⅜"	1⅜"	⅜"	11.90
730-11/16	11/16"	⅜"	8.50	730-1½	1½"	⅜"	12.80
730-¾	¾"	⅜"	8.50	730-1⅝	1⅝"	¾"	15.60
730-13/16	13/16"	⅜"	8.50	730-1¾	1¾"	¾"	17.50
730-⅞	⅞"	⅜"	8.50	730-1⅞	1⅞"	¾"	21.80
730-15/16	15/16"	⅜"	9.20	730-2	2"	¾"	22.60
730-1	1"	⅜"	9.20	730-2⅛	2⅛"	¾"	24.30
730-1 1/16	1 1/16"	⅜"	9.70	730-2¼	2¼"	¾"	26.10
730-1⅛	1⅛"	⅜"	9.70	730-2½	2½"	¾"	40.80
730-1 5/32	1 5/32"	⅜"	9.70	730-2¾	2¾"	¾"	57.00
730-1 3/16	1 3/16"	⅜"	9.70	730-3	3"	¾"	79.00

Greenlee Series 731 Square Radio Chassis Punches—Cut any square or oblong shapes to exact size needed.

Part No.	Hole Size	Net Each	Part No.	Hole Size	Net Each
731-½	½"	$23.30	731-⅞	⅞"	$29.60
731-⅝	⅝"	23.30	731-1	1"	29.50
731-¾	¾"	24.40			

No. 731-R Relay Punch—Makes 1.018" × 0.861" hole for P&B No. KHP relay socket. Starting hole, 9/16". Capacity, 16 ga.
Part No. 501 5115.0—Net Each....................$47.40

Greenlee Series 733 Radio Chassis "D" Punch—For high frequency miniature tube sockets. Drive screw fits ⅜" hole.
Part No. 733-½—Makes ½" hole. Net Each....................$19.70
Part No. 733-⅝—Makes ⅝" hole. Net Each.................... 20.90

Greenlee Series 732 Chassis "Key" Punches—Cuts slots for keyed tube sockets.

Part No.	Hole Size	Net Each	Part No.	Hole Size	Net Each
732-15/32"	15/32"	$19.90	732-1 17/64	1 17/64"	$32.90
732-1 1/64"	1 1/64"	28.30	732-1 21/64	1 21/64"	37.60

HYDRAULIC PUNCH DRIVER

An efficient, portable hydraulic unit specifically designed for driving standard Greenlee Knockout Punches. Develops over 11 tons ram pressure. Cuts conduit holes in up to 10-gauge metal with ease. Cuts in tight places more easily too, because no wrench space is needed. Set consists of hand hydraulic pump, high pressure hose, ram, adapter screw and die sleeve. The 3-foot high-pressure hose is of heavy wire braid-reinforced oil-resistant rubber. Spring action returns piston when hydraulic pressure is released. The set handles knockout punches for cutting ½" to 4" conduit holes and all Greenlee radio chassis punches using ⅜" and larger diameter drive screws. Set is packed in sturdy metal case for easy transportation. Punches and dies not included.
Greenlee Hydraulic Knockout Punch Driver Model 7646—Complete Set. Weight, 20 lbs. Net Each....................$270.00
Write for prices on punches and individual items contained in the above set. Other Greenlee Punch Drivers are available; inquire.

LOW VOLTAGE POWER TRANSISTORS

Motorola Type	Case	Freq. MHz	P_{in} Watts	P_{out} Watts	Gain dB	Net Each 1-9	Net Each 10-49
MRF476	TO–220	1.5–30	0.1	3.0	15	$ 2.93	$ 2.79
MRF475	TO–220	1.5–30	1.2	12	10	4.55	4.33
MRF433	211	1.5–30	0.13	12.5	20	17.70	16.86
MRF479	TO–220	1.5–30	1.5	15	10	11.80	11.24
MRF406	211	1.5–30	1.25	20	12	20.24	19.27
MRF477	TO–220	1.5–30	1.25	40	15	21.92	20.88
MRF460	211	1.5–30	2.5	40	12	26.98	25.70
MRF421	211	1.5–30	10	100	10	53.96	51.39
MRF412	211	1.5–30	3.5	70	13	37.10	35.33
MRF8003	TO–39	14–30	0.05	0.5	10	2.57	2.44
MRF8004	TO–39	14–30	0.35	3.5	10	3.08	2.93
MRF449	211	14–30	1.9	30	10	18.55	17.67
MRF449A	145A	14–30	1.9	30	10	18.55	17.67
MRF450	211	14–30	4.0	50	11	21.07	20.07
MRF450A	145A	14–30	4.0	50	11	21.07	20.07
MRF453	211	14–30	3.0	60	11	26.98	25.70
MRF453A	145A	14–30	3.0	60	11	26.98	25.70
MRF455	211	14–30	3.0	60	11	23.46	22.34
MRF455A	145A	14–30	3.0	60	11	23.46	22.34
MRF458	211	14–30	5.0	80	12	30.35	28.91
MRF454	211	14–30	5.0	80	12	29.50	28.10
MRF454A	145A	14–30	5.0	80	12	29.50	28.10
MRF402	TO–39	27–50	0.1	1.0	10	3.37	3.21
MRF497	TO–220	27–50	4.0	40	10	21.92	20.88
MRF492	211	27–50	5.6	70	11	33.73	32.12
MRF492A	145A	27–50	5.6	70	11	33.73	32.12
MRF229	TO–39	66–88	0.15	1.5	10	4.25	4.05
MRF230	TO–39	66–88	0.15	1.5	10	2.93	2.79
MRF231	145A	66–88	0.15	3.5	10	16.01	15.25
MRF232	145A	66–88	0.95	7.5	9	17.70	16.86
MRF233	145A	66–88	1.7	15	9.5	18.55	17.67
MRF234	145A	66–88	2.5	25	10	23.61	22.48
MRF237	TO–39	156–162	0.25	4.0	12	4.62	4.40
MRF238	145A	156–162	3.75	30	9	20.24	19.27
MHW613	301A	156–162	0.3	30	20	76.81	73.15
MRF239	145A	156–162	3.0	30	10	25.30	24.09
MRF240	145A	156–162	5.0	40	9	26.98	25.70
MRF604	TO–46	136–174	0.1	1.0	10	3.04	2.89
2N4427	TO–39	136–174	0.1	1.0	10	1.91	1.82
MRF607	TO–39	136–174	0.1	1.8	12	3.81	3.63
2N6255	TO–39	136–174	0.5	3.0	8	2.86	2.72
2N5589	144B	136–174	0.44	3.0	8	12.68	12.08
MRF237	TO–39	136–174	0.25	4.0	12	4.62	4.40
2N6080	145A	136–174	0.25	4.0	12	15.18	14.45
MRF260	TO–220	136–174	0.5	5.0	10	8.43	8.03
2N5590	145A	136–174	3.0	10	5	15.18	14.45
MRF261	TO–220	136–174	3.0	10	6	10.12	9.64
MRF212	145A	136–174	1.25	10	9	23.61	22.48
2N6081	145A	136–174	3.5	15	6	17.70	16.86
MRF262	TO–220	136–174	3.5	15	6	14.33	13.64
MRF221	211	136–174	3.3	15	6	16.86	16.06
2N5591	145A	136–174	9.0	25	4.4	20.24	19.27
2N6082	145A	136–174	6.0	25	6	18.55	17.67
MRF222	211	136–174	6.0	25	6	18.89	17.99
2N6083	145A	136–174	8.1	30	6	19.43	18.50
MRF264	TO–220	136–174	9.1	30	5.2	17.70	16.86
MRF233	211	136–174	8.1	30	6	18.55	17.67
MRF264	TO–220	136–174	9.1	30	5	17.70	16.86
2N6084	145A	136–174	14.3	40	4.5	22.00	20.95
MRF224	211	136–174	14.3	40	4.5	22.73	21.65
MRF247	316	136–174	15	75	7.0	45.46	43.29
MRF245	316	136–174	18.2	80	6.4	52.28	49.79
MHW612	301A	146–174	0.2	20	20	74.02	70.49
MRF207	TO–39	220	0.15	1.0	8.2	1.69	1.61
MRF225	TO–39	220	0.18	1.5	9	2.57	2.44
MRF227	TO–39	220	0.13	3.0	13.5	5.06	4.82
MRF226	145A	220	1.6	13	9	20.24	19.27
2N6256	249	407–512	0.05	0.5	7	12.83	12.22
MRF627	305A	407–512	0.05	0.5	10	13.83	13.17
MRF515	TO–39	407–512	0.12	0.75	8	2.93	2.79
2N3948	TO–39	407–512	0.25	1.0	6	2.57	2.44
MRF629	TO–39	407–512	0.32	2.0	8	5.06	4.82
2N5944	244	407–512	0.25	2.0	9	15.18	14.45
2N5945	244	407–512	0.64	4.0	8	16.86	16.06
MRF660	TO–220	407–512	2.0	7.0	5.4	16.01	15.25
2N5946	244	407–512	2.5	10	6	21.12	20.11
MRF641	316	407–512	3.75	15	7.8	37.10	35.33
MRF644	316	407–512	5.9	25	6.2	40.47	38.54
MRF646	316	407–512	13.3	40	4.8	43.84	41.76
MRF648	316	407–512	22	60	4.4	48.90	46.57
MRF838	305A	806–870	0.22	1.0	6.5	15.18	14.45
MRF838A	305	806–870	0.22	1.0	6.5	15.18	14.45
MRF840	319	806–870	2.5	10	6	43.84	41.76
MRF842	319	806–870	5.0	20	6	52.28	49.79
MRF844	319	806–870	9.0	30	5.2	62.39	59.42
MRF846	319	806–870	15	40	4.3	65.77	62.63

SMALL-SIGNAL, METAL-PACKAGED TRANSISTORS

For illustrations, see following page.

SWITCHING TRANSISTORS

Motorola Type	Case	h_{FE} at I_C Min.	h_{FE} at I_C mA	Min. BV_{CEO} Volts	Max. I_C A	Min. f_T MHz	Net Each 1-9	Net Each 10-49
				NPN				
2N3444	TO–39	20	500	50	.....	175	$ 1.70	$ 1.62
2N3252	TO–39	25	500	40	.....	175	2.27	2.17
2N3253	TO–39	30	500	30	.....	200	2.71	2.58
2N2501	TO–18	10	500	20	.....	350	9.68	9.22
2N2369A	TO–18	40	10	15	0.2	500	.73	.70
2N3647	TO–46	25	150	10	0.5	350	4.03	3.84
2N3648	TO–46	30	150	15	0.5	450	4.77	4.54
2N2369	TO–18	20	100	15	0.5	500	.72	.69
2N3227	TO–18	30	100	20	0.5	500	4.77	4.54
2N3508	TO–46	40	10	20	0.5	500	9.53	9.08
2N3509	TO–46	100	10	20	0.5	500	9.53	9.08
2N4013	TO–18	35	500	30	1.0	300	2.93	2.79
2N4014	TO–18	35	500	50	1.0	300	3.15	3.00
2N3303	TO–39	20	10	.....	1.0	450	23.75	22.62
2N3725A	TO–39	35	500	30	1.2	300	2.13	2.03
2N3736	TO–46	30	1000	30	1.5	250	7.77	7.40
2N3737	TO–46	20	1000	50	1.5	250	2.93	2.79
2N3734	TO–39	30	1000	50	1.5	250	3.59	3.42
2N3735	TO–39	20	1000	50	1.5	250	1.23	1.17
2N3724	TO–39	35	500	30	2.0	300	1.83	1.75
2N5859	TO–39	15	1000	40	2.0	250	1.58	1.51
2N3725	TO–39	35	500	50	2.0	300	3.50	3.33
MM5262	TO–39	25	1000	50	2.0	350	3.15	3.00
2N5861	TO–39	25	500	50	2.0	200	2.57	2.44
2N3506	TO–39	40	1500	40	3.0	60	10.02	9.54
2N3507	TO–39	30	1500	50	3.0	60	10.49	9.99
2N2540	TO–18	100	150	30	.....	250	8.58	8.17
				PNP				
2N4209	TO–18	40	50	15	0.05	850	$ 2.74	$ 2.61
2N3546	TO–18	25	50	12	....	700	4.11	3.91
2N4208	TO–18	30	10	12	0.2	700	2.43	2.32
2N2894	TO–18	40	30	12	0.2	400	3.70	3.52
2N869A	TO–18	40	30	18	0.2	400	.98	.94
2N5022	TO–39	25	1000	.....	0.5	170	1.66	1.58
2N5023	TO–39	40	1000	.....	0.5	200	1.66	1.58
2N3762	TO–39	30	1000	40	1.5	180	8.87	8.45
2N3467	TO–39	40	500	40	0.1	175	3.89	3.70
2N3244	TO–39	50	500	40	1.0	175	4.84	4.61
2N3468	TO–39	25	500	50	1.0	150	4.25	4.05
2N3245	TO–39	30	500	50	1.0	150	5.13	4.89
2N4030	TO–39	15	1000	60	1.0	100	2.26	2.15
2N4033	TO–39	25	1000	80	1.0	150	1.47	1.40
2N4036	TO–39	40	150	65	1.0	60	1.25	1.19
2N4037	TO–39	40	150	65	1.0	60	1.12	1.06
2N3763	TO–39	20	1000	60	1.5	150	18.18	17.32
2N4406	TO–39	20	1000	80	1.5	150	19.80	18.85
2N4407	TO–39	30	1000	80	1.5	150	22.43	21.37
2N4404	TO–39	30	500	80	1.0	200	14.52	13.83
2N4405	TO–39	50	500	80	1.0	200	15.84	15.08
2N3634	TO–39	50	50	140	1.0	150	6.75	6.42
2N3635	TO–39	100	50	140	1.0	200	8.21	7.82
2N3636	TO–39	50	50	175	1.0	150	8.07	7.68

UHF/VHF AMPLIFIERS/OSCILLATORS

Motorola Type	Case	h_{FE} at I_C Min.	h_{FE} at I_C mA	Min. BV_{CEO} Volts	Max. NF at f dB	Max. NF at f MHz	Net Each 1-9	Net Each 10-49
				NPN				
2N918	TO–72	20	3.0	15	6.0	60	$1.22	$1.16
				PNP				
2N4260	TO–72	30	10.0	15	......	......	$21.70	$20.67
2N4261	TO–72	30	10.0	15	......	......	25.66	24.44
2N3307	TO–18	40	2.0	35	4.5	200	18.48	17.60

HIGH-GAIN, LOW-NOISE TRANSISTORS

Motorola Type	Case	h_{FE} at I_C Min.	h_{FE} at I_C µA	Min. BV_{CEO} Volts	Max. I_C A	Max. NF dB	Net Each 1-9	Net Each 10-49
				NPN				
MM6427	TO–18	5K	.....	40	300	.....	$2.05	$1.96
2N930	TO–18	100	10.0	45	30	3.0	.66	.63
2N930A	TO–18	100	10.0	45	30	3.0	2.42	2.31
2N2484	TO–18	100	10.0	60	50	8.0	.72	.69
				PNP				
2N2604	TO–46	40	0.01	45	30	4.0	$1.83	$1.75
2N2605	TO–46	100	0.01	45	30	4.0	1.83	1.75
2N3964	TO–18	250	1000.0	45	200	4.0	1.61	1.54
2N3965	TO–18	250	1000.0	60	200	8.0	1.69	1.61
2N3962	TO–18	100	1000.0	60	200	10.0	1.47	1.40
2N3798	TO–18	150	450.0	60	50	3.5	5.50	5.24
2N3799	TO–18	300	500.0	60	50	2.5	5.94	5.66
2N3963	TO–18	100	1.0	80	200	10.0	1.54	1.47

CONTINUED ON FOLLOWING PAGE

Silicon Transistors

Case 29
TO-92

TO-52

TO-39

TO-46

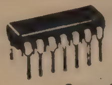
Case 22
TO-18

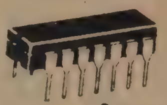
TO-72

TO-60

Case 215

Case 249-01


Case 646


Case 632

Case 654

Caso 145A-01,

Case 144B-03

Case 211-01

Case 244-01

Case 607

SMALL-SIGNAL, METAL-PACKAGED TRANSISTORS (Cont'd)

HIGH-VOLTAGE, HIGH-CURRENT TRANSISTORS

Motorola Type	Case	h_{FE} at I_C		Min. BV_{CEO} Volts	Max. I_C A	Min. f_T MHz	Net Each	
		Min.	mA				1-9	10-49
				NPN				
2N4237	TO-39	30	250	40	3.0	2.0	$ 1.61	$ 1.54
2N4238	TO-39	30	250	60	3.0	2.0	2.05	1.96
MM3005	TO-39	50	150	60	2.5	50.0	2.71	2.58
2N656	TO-39	30	200	60	.....	.....	2.87	2.74
2N4239	TO-39	30	250	80	3.0	2.0	2.35	2.23
MM3006	TO-39	50	200	80	2.5	50.0	3.15	3.00
2N657	TO-39	30	200	100	.....	.....	3.39	3.23
2N5681	TO-39	40	250	100	1.0	30.0	1.76	1.68
2N3498	TO-39	40	150	100	0.5	150.0	5.37	5.11
2N4924	TO-39	40	150	100	0.2	100.0	3.52	3.35
MM3007	TO-39	50	250	100	2.5	50.0	4.25	4.05
2N3499	TO-39	100	150	100	0.5	150.0	5.62	5.35
2N5682	TO-39	40	250	120	1.0	30.0	2.01	1.91
MM3008	TO-39	40	10	120	0.4	50.0	2.49	2.37
MM3001	TO-39	20	10	150	0.2	150.0	2.35	2.23
2N3114	TO-39	30	30	150	0.2	40.0	10.05	9.57
2N3712	TO-39	30	30	150	0.2	40.0	4.33	4.12
2N3500	TO-39	40	150	150	0.3	150.0	6.20	5.91
2N3501	TO-39	100	150	150	0.3	150.0	6.54	6.23
MM3009	TO-39	40	10	180	0.4	50.0	3.01	2.86
MM3002	TO-39	20	10	200	0.05	150.0	2.64	2.51
2N4926	TO-39	20	30	200	0.05	30.0	5.28	5.03
2N6430	TO-18	50	30	200	0.05	50.0	2.87	2.74
MM3003	TO-39	20	10	250	0.05	150.0	2.99	2.85
2N4927	TO-39	20	30	250	0.05	30.0	5.72	5.45
MM420	TO-39	25	30	250	1.0	15.0	1.54	1.47
2N5059	TO-39	30	30	250	0.15	30.0	3.81	3.63
2N3440	TO-39	40	20	250	1.0	15.0	1.32	1.26
2N3742	TO-39	20	30	300	0.05	30.0	6.85	6.52
2N5058	TO-39	35	30	300	0.15	30.0	4.33	4.12
2N6431	TO-18	50	30	300	0.05	50.0	3.15	3.00
MM421	TO-39	25	30	325	1.0	15.0	1.69	1.61
2N3439	TO-39	40	20	350	1.0	15.0	1.60	1.52
				PNP				
2N4234	TO-39	30	250	40	3.0	3.0	$ 1.83	$ 1.75
2N4235	TO-39	30	250	60	3.0	3.0	2.13	2.03
MM5005	TO-39	50	150	60	2.0	30.0	1.61	1.54
2N4036	TO-39	40	150	65	1.0	60.0	1.25	1.19
MM5006	TO-39	50	200	80	2.0	30.0	1.98	1.89
2N4236	TO-39	30	250	80	3.0	3.0	2.42	2.31
2N3496	TO-18	40	10	80	0.1	200.0	5.37	5.11
2N3494	TO-39	40	10	80	0.1	200.0	2.89	2.75
MM4000	TO-39	20	10	100	0.1	.....	2.35	2.23
2N4928	TO-39	25	10	100	0.1	100.0	6.89	6.56
2N5679	TO-39	40	250	100	1.0	30.0	2.01	1.91
MM5007	TO-39	50	250	100	2.0	30.0	2.49	2.37
2N3495	TO-39	40	10	120	0.1	150.0	3.37	3.21
2N3497	TO-18	40	10	120	0.1	150.0	3.37	3.21
2N5680	TO-39	40	250	120	1.0	30.0	2.01	1.91
2N3634	TO-39	50	50	140	1.0	150.0	6.75	6.42
2N3635	TO-39	100	50	140	1.0	200.0	8.21	7.82
MM4001	TO-39	20	10	150	0.5	.....	2.64	2.51
2N4929	TO-39	25	10	150	0.5	100.0	8.36	7.96
2N3636	TO-39	50	50	175	1.0	150.0	8.07	7.68
2N3637	TO-39	100	50	175	1.0	200.0	8.80	8.38
MM4002	TO-39	20	10	200	0.5		3.05	2.90
2N4930	TO-39	20	20	200	0.5	20.0	9.85	9.39
MM5415	TO-39	30	50	200	1.0	15.0	1.60	1.52
2N6432	TO-18	30	30	200	1.0	50.0	2.87	2.74
2N5415	TO-39	30	50	200	1.0	15.0	2.02	1.93
MM4003	TO-39	20	10	250	0.5	.....	3.37	3.21
2N4931	TO-39	20	20	250	0.5	20.0	11.22	10.68
2N3743	TO-39	25	30	300	0.05	30.0	6.83	6.51
MM5416	TO-39	30	50	300	1.0	15.0	2.20	2.10
2N6433	TO-18	30	30	300	1.0	50.0	3.15	3.00
2N5416	TO-39	30	50	300	1.0	15.0	2.74	2.61

GENERAL PURPOSE TRANSISTORS

Motorola Type	Case	h_{FE} at I_C		Min. BV_{CEO} Volts	Max. I_C A	Min. f_T MHz	Net Each	
		Min.	mA				1-9	10-49
				NPN				
2N916	TO-18	50	10	25	.....	300	$ 1.45	$ 1.38
2N2218	TO-39	40	150	30	0.8	250	.63	.60
2N2219	TO-39	100	150	30	0.8	250	.63	.60
2N2222	TO-18	100	150	30	0.8	250	.75	.71
2N3300	TO-39	100	150	30	0.5	250	1.83	1.75
2N3302	TO-18	100	150	30	0.5	250	1.91	1.82
2N697	TO-39	40	150	40	.....	50	.63	.60
2N718	TO-18	40	150	40	.....	50	.95	.91
2N2218A	TO-39	40	150	40	0.8	250	.65	.61
2N2221A	TO-18	40	150	40	0.8	250	.79	.75
2N5581	TO-46	40	150	40	0.8	250	4.99	4.75
2N3053	TO-39	50	150	40	0.7	100	.85	.81
MM3903	TO-52	50	10	40	0.2	250	2.05	1.96
2N2219A	TO-39	100	150	40	0.8	300	.65	.61
2N2222A	TO-18	100	150	40	0.8	300	.78	.74
2N3947	TO-18	100	10	40	0.2	300	4.24	4.03
2N5582	TO-46	100	150	40	0.8	300	5.75	5.48
MM3904	TO-52	100	10	40	0.2	300	2.20	2.10
2N3946	TO-18	50	10	40	0.2	300	4.33	4.12
2N2897	TO-18	50	150	45	1.0	100	2.71	2.58
2N2270	TO-39	50	150	45	1.0	100	1.45	1.38
2N956	TO-18	40	150	50	.....	70	1.69	1.61
2N1613	TO-39	40	150	50	0.5	60	.84	.80
2N2193A	TO-39	40	150	50	1.0	50	6.45	6.15
2N915	TO-18	50	10	50	.....	250	1.54	1.47
2N2895	TO-18	40	150	65	1.0	120	3.01	2.86
2N3700	TO-18	50	500	80	1.0	80	2.53	2.41
2N3020	TO-39	40	150	80	1.0	80	5.57	5.31
2N1711	TO-39	100	150	80	.....	70	.63	.60
2N3019	TO-39	100	150	80	1.0	100	1.07	1.02
2N2896	TO-18	60	150	90	1.0	120	4.55	4.33
				PNP				
2N1132	TO-39	30	150	35	0.6	60	$ 1.72	$ 1.63
2N1132A	TO-39	30	150	40	0.6	60	3.89	3.70
2N2904	TO-39	40	150	40	0.6	200	.78	.74
2N2906	TO-18	40	150	40	0.6	200	.76	.73
2N3250	TO-18	50	10	40	0.2	250	.85	.81
MM3905	TO-52	50	10	40	0.2	200	2.05	1.96
MM4037	TO-39	50	150	40	1.0	60	2.35	2.23
MM3906	TO-52	100	10	40	0.2	250	2.20	2.10
2N2907	TO-18	100	150	40	0.6	200	.75	.71
2N3251	TO-18	100	10	40	0.2	300	.85	.81
2N3486	TO-46	100	150	40	0.6	200	5.38	5.13
2N2905	TO-39	100	150	40	0.6	200	.79	.75
2N2904A	TO-39	40	150	60	0.6	200	.88	.84
2N2906A	TO-18	40	150	60	0.6	200	.79	.75
2N3485A	TO-46	40	150	60	0.6	200	5.13	4.89
2N3250A	TO-18	50	10	60	0.2	250	.88	.84
MM5005	TO-39	50	150	60	2.0	30	1.61	1.54
2N2905A	TO-39	100	150	60	0.6	200	.79	.75
2N2907A	TO-18	100	150	60	0.6	200	.78	.74
2N3251A	TO-18	100	10	60	0.2	300	.88	.84
2N3486A	TO-46	100	150	60	0.6	200	5.62	5.35
2N4030	TO-39	15	100	60	1.0	100	2.26	2.15
2N4036	TO-39	40	150	65	1.0	60	1.25	1.19
2N4037	TO-39	40	150	65	1.0	60	1.12	1.06
MM4036	TO-39	20	150	65	1.0	60	2.71	2.58
2N4404	TO-39	40	150	80	1.0	200	14.52	13.83
MM5006	TO-39	50	200	80	2.0	30	1.98	1.89
2N4405	TO-39	100	150	80	1.0	200	15.84	15.08
2N4029	TO-18	25	100	80	1.0	100	1.67	1.59
2N4033	TO-39	25	100	80	1.0	150	1.47	1.40
MM5007	TO-39	50	250	100	2.0	30	2.49	2.37

MOTOROLA Semiconductors

Silicon Transistors

SMALL-SIGNAL, PLASTIC-PACKAGED TRANSISTORS

GENERAL PURPOSE TRANSISTORS

Motorola Type	Case	h_{FE} at I_C		Min. BV_{CEO} Volts	Max. I_C A	Min. f_T MHz	Net Each	
		Min.	mA				1-9	10-49
NPN								
MPS6601	TO-92	30	1000.0	25	1.0	100	$0.71	$0.67
MPS6560	TO-92	50	500.0	25	0.5	60	.70	.67
MPS6514	TO-92	150	2.0	25	0.1	480	.68	.64
MPS5172	TO-92	100	10.0	25	0.1	.....	.29	.28
2N4124	TO-92	120	2.0	25	0.3	300	.54	.51
MPS6515	TO-92	250	2.0	25	0.1	480	.65	.61
2N4123	TO-92	50	2.0	30	0.2	250	.52	.50
MPS6513	TO-92	90	2.0	30	0.1	330	.65	.61
MPS2222	TO-92	100	150.0	30	0.6	250	.49	.47
MPS3704	TO-92	100	50.0	30	0.6	100	.50	.48
MPSA20	TO-92	40	5.0	40	0.1	125	.38	.36
2N4400	TO-92	50	150.0	40	0.6	200	.86	.82
2N3903	TO-92	50	100.0	40	0.2	250	.73	.69
MPS6531	TO-92	90	100.0	40	0.6	390	.76	.73
2N4401	TO-92	100	150.0	40	0.6	250	1.11	1.06
2N3904	TO-92	100	10.0	40	0.2	300	.76	.72
MPSA05	TO-92	50	100.0	60	0.5	100	.70	.67
MPS8098	TO-92	100	1.0	60	0.2	150	.51	.49
MPSA06	TO-92	50	100.0	80	0.5	100	.73	.70
MPS8099	TO-92	100	1.0	80	0.2	150	.57	.55
PNP								
MPS6651	TO-92	30	1000.0	25	1.0	100	$0.76	$0.73
MPS6562	TO-92	50	500.0	25	0.5	60	.75	.72
MPS6518	TO-92	150	2.0	25	0.1	480	.87	.82
2N4126	TO-92	120	2.0	25	0.3	300	.54	.51
MPS6519	TO-92	250	2.0	25	0.1	480	1.04	.99
2N4125	TO-92	50	2.0	30	0.2	250	.52	.50
MPS6517	TO-92	90	2.0	30	0.1	330	.79	.75
MPS2907	TO-92	100	150.0	30	0.6	250	.60	.57
MPS3702	TO-92	100	50.0	30	0.6	100	.50	.48
MPSA70	TO-92	40	5.0	40	0.1	125	.44	.42
2N4402	TO-92	50	150.0	40	0.6	200	.86	.82
2N3905	TO-92	50	100.0	40	0.2	250	.77	.73
MPS6534	TO-92	90	100.0	40	0.6	390	.81	.77
2N4403	TO-92	100	150.0	40	0.6	250	1.26	1.20
2N3906	TO-92	100	10.0	40	0.2	300	.80	.76
MPSA55	TO-92	50	100.0	60	0.5	100	.76	.73
MPS8598	TO-92	100	1.0	60	0.2	150	.54	.52
MPSA56	TO-92	50	100.0	80	0.5	100	.88	.84
MPS8599	TO-92	100	1.0	80	0.2	150	.60	.57

LOW-NOISE TRANSISTORS

Motorola Type	Case	h_{FE} at I_C		Min. BV_{CEO} Volts	Typ. NF dB	Max. f_T MHz	Net Each	
		Min.	mA				1-9	10-49
NPN								
2N4124	TO-92	120	2.0	25	5.0	300	$0.54	$0.51
MPS6520	TO-92	200	2.0	25	3.0	390	.72	.69
MPS6521	TO-92	300	2.0	25	3.0	390	.83	.79
2N5089	TO-92	400	10	25	2.0	50	1.11	1.06
2N4123	TO-92	50	2.0	30	6.0	250	.52	.50
2N5088	TO-92	300	10	30	3.0	50	.77	.73
MPS8097	TO-92	250	0.1	40	2.0	200	1.06	1.01
MPSA18	TO-92	500	10	45	1.5	100	1.11	1.06
2N6429	TO-92	500	10	45	5.0	100	.88	.84
2N6429A	TO-92	500	10	45	3.5	100	1.10	1.05
2N5210	TO-92	250	10	50	2.0	30	1.06	1.01
2N6428	TO-92	250	10	50	6.0	100	.88	.84
2N6428A	TO-92	250	10	50	4.0	100	1.10	1.05
MPSA09	TO-92	100	0.1	50	1.4	30	.79	.75
2N5209	TO-92	150	10	50	3.0	30	.97	.92
PNP								
2N4126	TO-92	120	2.0	25	4.0	250	$0.54	$0.51
MPS6522	TO-92	200	2.0	25	3.0	340	.76	.73
MPS6523	TO-92	300	2.0	25	3.0	340	.85	.81
2N4125	TO-92	50	2.0	30	5.0	200	.52	.50
MPS4250	TO-92	250	10	40	2.0	250	.44	.42
2N5086	TO-92	150	10	50	3.0	40	.77	.73
2N5087	TO-92	250	10	50	2.0	40	.92	.88
MPS4249	TO-92	100	10	60	3.0	100	.37	.35
MPS4250A	TO-92	250	0.1	60	2.0	250	.47	.45

HIGH-SPEED, SATURATED-SWITCHING TRANSISTORS

Motorola Type	Case	Min. BV_{CEO} Volts	h_{FE} at I_C		Maximum		Net Each	
			Min.	mA	V_{CE} (sat) @ Volts	I_C mA	1-9	10-49
NPN								
2N4265	TO-92	12	100	10	0.22	10	$0.79	$0.75
MPS3013	TO-92	15	15	300	0.5	300	.72	.69
MPS706	TO-92	15	20	10	0.6	10	.66	.63
MPS3646	TO-92	15	30	30	0.2	30	.41	.39
2N4264	TO-92	15	40	10	0.22	10	.70	.67
MPS2369	TO-92	15	40	10	0.25	10	.78	.74
MPS835	TO-92	20	20	10	0.3	10	.88	.84
MPS834	TO-92	.....	25	10	0.25	10	.76	.73
PNP								
2N5228	TO-92	5.0	30	10	0.4	10	$0.41	$0.39
MPS4257	TO-92	6.0	30	50	0.15	10	.54	.52
MPS3639	TO-92	6.0	30	10	0.16	10	.38	.36
MPS3640	TO-92	12	30	10	0.2	10	.43	.41
MPS4258	TO-92	12	30	50	0.15	10	.51	.49
2N5771	TO-92	15	50	10	0.18	10	.63	.60

UHF/VHF AMPLIFIERS

Motorola Type	Case	Min. BV_{CEO} Volts	Max. NF at f		Max. C_{cb} pF	Min. f_T MHz	Net Each	
			dB	MHz			1-9	10-49
NPN								
MPS5179	TO-92	12	4.5	200	1.0	900	$0.57	$0.55
MPS3563	TO-92	12	......	......	1.7	600	.41	.39
2N5222	TO-92	15	......	......	1.3	450	.35	.34
MPS918	TO-92	15	6	60	1.7	600	1.28	1.22
MPSH17	TO-92	15	6	200	0.9	800	1.05	1.00
MPSH31	TO-92	20	6	45	0.65	300	.75	.71
MPSH30	TO-92	20	6	45	0.65	300	.75	.71
MPS6539	TO-92	20	4.5	100	0.7	500	.92	.88
MPS8001	TO-92	25	......	......	0.65#	100	.66	.63
MPSH19	TO-92	25	......	......	0.65	300	.69	.66
MPS6546	TO-92	25	......	......	0.35#	600	1.91	1.82
MPS6547	TO-92	25	......	......	0.35#	600	2.08	1.98
MPSH10	TO-92	25	......	......	0.65‡	650	.76	.72
MPSH11	TO-92	25	......	......	0.7	650	.83	.79
MPS6543	TO-92	25	......	......	1.0	750	2.03	1.94
MPSH32	TO-92	30	3.3	45	0.22	300	.92	.88
MPS6540	TO-92	30	......	......	0.65	350	.97	.92
MPSH20	TO-92	30	......	......	0.65	400	.95	.91
MPSH24	TO-92	30	......	......	0.36	400	1.05	1.00
MPSH07	TO-92	30	3.2	100	0.3‡	400	1.13	1.07
MPSH08	TO-92	30	3.5	200	0.3‡	400	1.13	1.07
MPS3866	TO-92	30	......	......	......	500	.95	.91
MPSH37	TO-92	40	......	......	0.7#	300	.79	.75
MPS3693	TO-92	45	4.0#	1	3.5	200	.46	.43
MPS3694	TO-92	45	4.0	1	3.5	200	.51	.49
MPSH34	TO-92	45	......	......	0.32	500	1.00	.95
MPSH04	TO-92	80	2.0	1	1.6	80	.75	.71
MPSH05	TO-92	80	2.0	1	1.6	80	.72	.69
PNP								
MPSH81	TO-92	20	......	......	0.65‡	600	$0.69	$0.66
2N5208	TO-92	25	3.0	100	1.0	300	.79	.75
MPSH54	TO-92	80	2.0	1	1.6	80	.79	.75
MPSH55	TO-92	80	......	......	1.6	80	.75	.71

#Typical. ‡C_{ce}

HIGH-VOLTAGE TRANSISTORS

Motorola Type	Case	h_{FE} at I_C		Min. BV_{CEO} Volts	Max. I_C A	Min. f_T MHz	Net Each	
		Min.	mA				1-9	10-49
NPN								
MPSL01	TO-92	50	10	120	0.15	60	$0.79	$0.75
MPSD03	TO-92	25	10	100	0.05	40	1.29	1.23
MPSD02	TO-92	20	30	140	0.05	40	1.32	1.26
2N5550	TO-92	60	10	140	0.6	100	.85	.81
2N5551	TO-92	80	10	160	0.6	100	.91	.87
MPSD01	TO-92	20	30	200	0.1	40	1.49	1.42
MPSA43	TO-92	40	10	200	0.5	50	1.00	.95
2N6515	TO-92	50	30	250	0.5	40	.95	.91
MPSA42	TO-92	40	10	300	0.5	50	.82	.78
2N6516	TO-92	45	30	300	0.5	40	1.00	.95
2N6517	TO-92	30	30	350	0.5	40	1.06	1.01
MPSA45	TO-92	50	10	350	0.3	20	1.25	1.19
MPSA44	TO-92	50	10	400	0.3	20	1.39	1.33
PNP								
MPSD53	TO-92	20	30	100	0.05	40	$1.29	$1.23
MPSL51	TO-92	40	50	100	0.6	60	.90	.85
2N5400	TO-92	40	10	120	0.6	100	1.10	1.05
MPSD52	TO-92	20	30	140	0.05	40	1.36	1.29
2N5401	TO-92	60	10	150	0.6	100	1.31	1.24
MPSD51	TO-92	20	30	200	0.1	40	1.45	1.38
MPSA93	TO-92	40	10	200	0.5	50	.78	.74
2N6518	TO-92	50	30	250	0.5	40	1.00	.95
MPSA92	TO-92	40	10	300	0.5	50	.89	.85
2N6519	TO-92	45	30	300	0.5	40	1.06	1.01
2N6520	TO-92	30	30	350	0.5	40	1.12	1.06

DARLINGTON TRANSISTORS

Motorola Type	Case	Min. BV_{CEO} Volts	h_{FE} at I_C		Min. f_T MHz	Max. I_C mZ	Net Each	
			Min.	mA			1-9	10-49
NPN								
MPSA12	TO-92	20	20K	10	......	300	$0.85	$0.81
MPSD04	TO-92	25	1K	100	100	300	1.36	1.29
MPSA13	TO-92	30	10K	100	125	300	.65	.62
MPSA14	TO-92	30	20K	100	125	300	.75	.71
2N6426	TO-92	40	30K	100	150	500	.73	.70
2N6427	TO-92	40	20K	100	130	500	.70	.67
MPSA25	TO-92	40	10K	100	125	500	.95	.91
MPSA26	TO-92	50	10K	100	125	500	1.01	.96
MPSA27	TO-92	60	10K	100	125	500	1.16	1.10
MPSA28	TO-92	80	10K	100	125	500	1.12	1.06
MPSA29	TO-92	100	10K	100	125	500	1.14	1.09
PNP								
MPSA62	TO-92	20	20K	10	.....	300	$0.85	$0.81
MPSD54	TO-92	25	1K	100	100	300	1.53	1.45
MPSA63	TO-92	30	10K	100	125	300	.62	.59
MPSA64	TO-92	30	20K	100	125	300	.75	.71
MPSA75	TO-92	40	10K	100	125	300	.95	.91
MPSA76	TO-92	50	10K	100	125	300	1.01	.96
MPSA77	TO-92	60	10K	100	125	300	1.16	1.10

SMALL SIGNAL HERMETIC TRANSISTORS

SILICON DUAL TRANSISTORS

Devices listed in descending order of magnitude of h_{FE}.

LOW NOISE—HIGH GAIN AMPLIFIERS

Motorola Type	Case	Polarity	BV_{CEO} V	DC Current Gain Ratio $h_{FE}1/h_{FE2}$	Net Ea., Lots 1-9	Net Ea., Lots 10-49
2N2919	654	NPN	60	0.9/1.0 10%	$ 6.16	$ 5.87
2N2920*	654	NPN	60		6.60	6.28
2N3810	654	PNP	60		6.75	6.42
2N3811	654	PNP	60		7.33	6.98
2N2639	654	NPN	40	0.9/1.0 10%	3.67	3.49
2N2642	654	NPN	40		4.40	4.19
2N2915	654	NPN	40		11.73	11.17
2N2916	654	NPN	40		6.16	5.87
2N3808	654	PNP	60	0.8/1.0 20%	6.16	5.87
2N3809	654	PNP	60		6.45	6.15
2N2913	654	NPN	40	0.8/1.0 • or unmatched 20%	3.67	3.49
2N2914	654	NPN	40		4.11	3.91
2N3806	654	PNP	60		4.55	4.33
2N3807	654	PNP	60		4.55	4.33

GENERAL PURPOSE AMPLIFIERS AND SWITCHES

Motorola Type	Case	Polarity	BV_{CEO} V	DC Current Gain Ratio h_{FE1}/h_{FE2}	Net Ea., Lots 1-9	Net Ea., Lots 10-49
2N2060*	654	NPN	60	0.9/1.0 10%	$ 5.28	$ 5.03
2N2903A	654	NPN	30		4.99	4.75
MD3250A†	654	PNP	40		9.53	9.08
MD3251A†	654	PNP	40		10.27	9.78
2N2480A	654	NPN	40	0.8/1.0 20%	4.25	4.05
2N2652	654	NPN	60		4.25	4.05
2N2903	654	NPN	30		9.75	9.29
2N4938	654	PNP	40		4.40	4.19
MD2218†	654	NPN	30	0.8/1.0 > or unmatched 20%	3.81	3.63
MD2219†	654	NPN	30		13.20	12.57
MD2905†	654	PNP	40		13.20	12.57
MD3251†	654	PNP	40		9.24	8.80
2N5793	654	NPN	40		8.29	7.89
2N5794	654	NPN	40		4.69	4.47
2N5795	654	PNP	60		5.43	5.17
2N5796	654	PNP	60		5.57	5.31
2N4854*	654	‡	40	....	6.31	6.01
MD6001†	654	‡	30	....	6.01	5.73
MD6002†	654	‡	30	....	14.96	14.24

HIGH SPEED SWITCHES, HIGH FREQUENCY OSCILLATORS

MD708A†	654	NPN	15	0.9/1.0 10%	$7.33	$6.98
MD918A†	654	NPN	15		8.07	7.68
MD2369A†	654	NPN	15		6.60	6.28
MD708B†	654	NPN	15	0.8/1.0 20%	6.60	6.28
MD918B	654	NPN	15		8.07	7.68
MD708†	654	NPN	15	0.8/1.0 > or unmatched 20%	5.87	5.59
MD918†	654	NPN	15		7.04	6.70
MD2369†	654	NPN	15		4.99	4.75

*JAN and JANTX types available. †For Case 610, add suffix F; prices on request. ‡Complementary pairs; one NPN/one PNP.

UNIJUNCTION TRANSISTORS—UJT

Motorola Type	Case	Intrinsic Standoff Ratio	Max. I_P µA	Min. I_V mA	Max. P_D mW	Net Ea., Lots 1-9	Net Ea., Lots 10-49
MU10	29	0.50–0.85	5.0	1.0	300	$0.60	$0.57
MU20	22	0.56–0.85	5.0	1.0	300	.69	.66
MU2646	29	0.56–0.75	5.0	4.0	300	1.29	1.23
2N2646	22	0.56–0.75	5.0	4.0	300	.81	.77
2N2647	22	0.68–0.82	2.0	8.0	300	1.41	1.34
2N3980	22	0.68–0.82	2.0	1.0	360	4.25	4.05
2N4851	22	0.56–0.75	2.0	2.0	300	1.31	1.24
2N4852	22	0.70–0.85	2.0	4.0	300	1.31	1.24
2N4853	22	0.70–0.85	0.4	6.0	300	3.17	3.02
2N4870	29	0.56–0.75	5.0	2.0	300	1.03	.98
2N4871	29	0.70–0.85	5.0	4.0	300	.92	.88
MU4891	29	0.55–0.82	5.0	2.0	300	1.10	1.05
MU4892	29	0.51–0.69	2.0	2.0	300	1.44	1.37
MU4893	29	0.55–0.82	2.0	2.0	300	1.19	1.13
MU4894	29	0.74–0.86	1.0	2.0	300	1.29	1.23
2N4948*	22	0.55–0.82	2.0	2.0	360	1.16	1.10
2N4949*	22	0.74–0.86	1.0	2.0	360	3.07	2.92
2N5431†	22	0.72–0.80	0.4	2.0	360	4.44	4.23

*JAN and JANTX types available. †JAN type available.

PROGRAMMABLE UNIJUNCTION TRANSISTORS—PUT

I_P and I_V at R_G = 1 meg. V_O = 6.0 V min. V_F = 1.5 V at I_F = 50 mA. tr = 80 nsec. T_J = −50°C to +100°C except as otherwise noted.

Motorola Type	Case	Maximum I_P µA	Maximum I_V µA	P_D mW	I_T (pulse) A	Net Ea., Lots 1-9	Net Ea., Lots 10-49
MPU131	29	2.0	50	375	2.0	$0.91	$0.87
MPU132	29	0.3	50	375	2.0	1.00	.95
MPU133	29	0.15	25	375	2.0	1.14	1.09
2N6027	29	2.0	50	375	5.0	.40	.38
2N6028	29	0.15	25	375	5.0	.50	.48
2N6116*	22	2.0	50	250	2.0	1.77	1.69
2N6117*	22	0.3	50	250	2.0	2.92	2.78
2N6118*	22	0.15	25	250	2.0	3.53	3.37
MPU6027	29	2.0	50	375	....	1.07	1.02
MPU6028	29	0.15	25	375	....	1.36	1.30

*T_J = −50°C to +125°C.

NPN-PNP SILICON QUAD TRANSISTORS

Each quad transistor contains four similar transistors that can be used to reduce space requirements. Listed in order of decreasing BVCEO (min.). NPN except as otherwise noted.

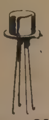
PLASTIC DUAL-IN-LINE (CASE 646)

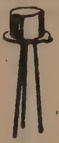
Motorola Type	BV CEO V	h_{FE} at I_C Min.	h_{FE} at I_C mA	Maximum t_{on} ns	Maximum t_{off} ns	Min. f_T MHz	Net Ea., Lots 1-9	Net Ea., Lots 10-49
MPQ3799*	60	300	0.1	......	......	60	$3.36	$3.20
MPQ3467*	40	20	500.0	40	90	250	2.61	2.49
MPQ3725	40	25	500.0	35	60	250	2.61	2.49
MPQ2483	40	150	1.0	......	......	50	3.12	2.98
MPQ3798*	40	150	0.1	......	......	60	3.12	2.98
MPQ2484	40	300	1.0	......	......	50	3.36	3.20
MPQ6001†	30	40	150.0	30‡	225‡	200	3.84	3.66
MPQ6002†	30	100	150.0	30‡	225‡	200	4.30	4.09
MPQ3303	12	40	300.0	15	20	400	4.30	4.09
CERAMIC DUAL-IN-LINE (CASE 632)								
MHQ2907*	60	100	150.0	30‡	100‡	350	$11.58	$11.03
MHQ3799*	60	300	0.1	......	......	325	12.46	11.87
MHQ2906*	40	40	150.0	30‡	100‡	350	11.00	10.47
MHQ2221	40	40	150.0	30	225	350	11.00	10.47
MHQ2222	40	100	150.0	25	250	350	11.58	11.03
MHQ3798*	40	150	0.1	......	......	325	12.02	11.45
MHQ6100†	40	75	1.0	......	......	175§	13.75	13.10
MHQ3467*	40	20	500.0	40	120	....	11.58	11.03
MHQ6001†	30	40	150.0	......	......	400	13.20	12.57
MHQ6002†	30	100	150.0	......	......	400	14.37	13.69
MHQ2483	25	150	1.0	......	......	175	12.02	11.45
MHQ2369	15	40	10.0	9‡	15‡	550	13.49	12.85
MHQ3546*	12	25	50.0	15‡	25‡	1000	14.22	13.55
FLAT PACK (CASE 607)								
2N5146*	40	20	1000.0	40	120	200	$30.94	$29.47
MQ3467*	40	20	500.0	40	120	200	30.65	29.19
MQ3725	40	30	500.0	45	75	300	29.99	28.56
MQ2219A	40	100	150.0	60	350	270	29.33	27.93

*PNP; all other types NPN. †Complementary. ‡Typical. §NPN; 130 MHz, PNP.

MOTOROLA Semiconductors

Field Effect Transistors


Case 20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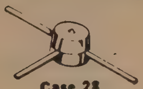
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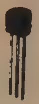
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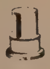
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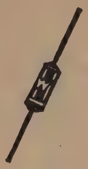
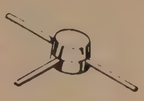
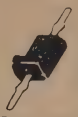

Case 51


Case 176


Case 226

RF AMPLIFIERS

Listed in order of decreasing specified test frequency; increasing power gain and noise figure.

Motorola Type	Case	f_T MHz	Minimum		Max. C_{rss} pF	Net Ea., Lots	
			Gps dB	NF dB		1-9	10-49
N-CHANNEL JFETs							
U310	27	450	11	3.0	2.5	$2.57	$2.44
2N4416	20	400	10	4.0	0.8	2.20	2.10
2N4416A	20	400	10	4.0	0.8	2.27	2.17
2N5485	29	400	10	4.0	1.0	.66	.63
2N5486	29	400	10	4.0	1.0	.66	.63
MPF256	29	400	12	4.0	1.2	1.17	1.12
MPF102	29	100	.....	.....	3.0	.66	.63
2N5484	29	100	16	3.0	3.0	.66	.63
J310	29	100	16	3.0	2.5	1.03	.98
DUAL GATE, N-CHANNEL MOSFETs							
3N209	20	500	10	6.0	0.05	$1.83	$1.79
MFE521	20	500	21	3.5	0.02	2.27	2.17
3N201	20	200	15	5.0	0.03	1.76	1.68
3N202	20	200	15	.....	0.03	1.76	1.68
MFE131	20	200	17	5.0	0.05	1.69	1.61
3N212	20	200	21	.....	0.05	2.05	1.96
3N211	20	200	29	3.5	0.05	2.05	1.96
3N203	20	45	20	6.0	0.03	1.61	1.54
3N213	20	45	27	4.0	0.025	2.20	2.10

CHOPPERS AND SWITCHES

Listed in order of decreasing $V_{(BR)GSS}$, increasing $r_{ds(on)}$, then in order of increasing C_{rss} and I_{DSS}.

Motorola Type	Case	Min. $V_{(BR)GSS}$ V	Maximum		Max. I_{DSS} mA	Net Ea., Lots	
			$r_{ds(on)}$ Ohms	C_{rss} pF		1-9	10-49
N-CHANNEL JFETs							
2N4856	22	40	25	8.0	0.25	$1.54	$1.47
2N4857	22	40	40	8.0	0.25	1.54	1.47
2N4858	22	40	60	8.0	0.25	1.54	1.47
2N5638	29	-30	30	4.0	1.00	.81	.77
2N5639	29	30	60	4.0	1.00	.73	.70
2N5640	29	30	100	4.0	1.00	.81	.77
P-CHANNEL JFETs							
MPF970	29	30	100	5.0	10.00	$1.32	$1.26
MPF971	29	30	250	5.0	10.00	1.25	1.19
N-CHANNEL MOSFETs							
2N4351	20	25	300	1.3	10.00	$3.30	$3.14
P-CHANNEL MOSFETs							
MFE3003	20	15	200	1.0	10.00	$4.40	$4.19

POWER TRANSIENT SUPPRESSORS (CASE 119)

P_D 350 W max. at T_C 25°C, T_J 175°C. $I_{R(max)}$ at V_R 50 µADC. MPZ Series is an array of six basic cells, special configurations are available with various power and/or voltage ratings

Motorola Type	Nom. $V_{OP(PK)}$ VDC	Max. C_F V	$V_{Z(max.)}$ at I_Z*		Typ. C µF	Net Ea., Lots of	
			VDC	ADC		1-9	10-49
MPZ5-16A	14	1.25	24	200	0.025	$ 45.37	$ 43.21
MPZ5-16B	14	1.25	20	200	0.025	81.21	77.34
MPZ5-32A	28	1.25	50	100	0.011	32.45	30.91
MPZ5-32B	28	1.25	45	100	0.011	48.48	46.17
MPZ5-32C	28	1.25	40	100	0.011	81.21	77.34
MPZ5-180A	165	1.14	250	20	0.0012	48.48	46.17
MPZ5-180B	165	1.14	250	20	0.0012	81.21	77.34
MPZ5-180C	165	1.14	250	20	0.0012	113.36	107.96

*Pulse width 1 0 msec

GENERAL PUPOSE AMPLIFIERS/SWITCHES

Listed in order of increasing gate-source breakdown voltage, and forward transfer admittance.

Motorola Type	Case	Min. V#	Minimum-Maximum		Net Ea., Lots	
			I_{DSS} mA	y_{fs} µmhos	1-9	10-49
N-CHANNEL JFETs						
2N5459	29	25	4.0–16	2000–6000	$0.66	$0.63
2N5458	29	25	2.0–9.0	1500–5500	.66	.63
2N5457	29	25	1.0–5.0	1000–5000	.66	.63
2N4416	20	30	5.0–15	4500–7500	2.20	2.10
2N4416A	20	30	5.0–15	4500–7500	2.27	2.17
2N3823	20	30	4.0–20	3500–6500	1.54	1.47
2N4222	20	30	5.0–15	2500–6000	2.05	1.96
2N4221	20	30	2.0–6.0	2000–5000	2.05	1.96
2N4220	20	30	0.5–3.0	1000–4000	2.05	1.96
2N4341	22	50	3.0–9.0	2000–4000	1.83	1.75
2N4340	22	50	1.2–3.6	1300–3000	1.54	1.47
2N4339	22	50	0.5–1.5	800–2400	1.32	1.26
P-CHANNEL JFETs						
2N2609	22	30	2.0–10	2500–	$2.05	$1.96
2N2608	22	30	0.9–4.5	1000–	1.98	1.89
2N5462	29	40	4.0–16	2000–6000	1.03	.98
2N5461	29	40	2.0–9.0	1500–5000	.95	.91
2N5460	29	40	1.0–5.0	1000–4000	1.03	.98
N-CHANNEL MOSFETs						
3N128	20	20	5.0–25	5000–12000	$3.01	$2.86
MFE3004	20	20	2.0–10	2000–	2.64	2.51
3N171	20	25	–10	1000–	3.67	3.49
3N170	20	25	–10	1000–	4.03	3.84
3N169	20	25	–10	1000–	4.40	4.19
2N4351	20	25	–10	1000–	3.30	3.14
P-CHANNEL MOSFETs						
MFE3003	20	15	–10	....	$4.40	$4.19
2N4352	20	25	10–25	1000–	3.67	3.49
3N157	20	35	–10	1000–4000	3.67	3.49
3N157A	20	35	–0.25	1000–4000	6.23	5.94

GENERAL PURPOSE AUDIO AMPLIFIERS

Listed in order of increasing gate-source breakdown voltage and forward transfer admittance.

Motorola Type	Case	Min. V#	Minimum-Maximum		Net Ea., Lots	
			I_{DSS} mA	y_{fs} µmhos	1-9	10-49
N-CHANNEL JFETs						
2N4222A	20	30	5.0–15	2500–6000	$2.13	$2.03
2N4221A	20	30	2.0–6.0	2000–5000	2.13	2.03
2N4220A	20	30	0.5–3.0	1000–4000	2.13	2.03
P-CHANNEL JFETs						
2N330	20	20	2.0–6.0	1500–3000	$2.86	$2.72
N-CHANNEL MOSFETs						
MFE3001	20	20	0.5–6.0	700–3500	$3.30	$3.14
P-CHANNEL MOSFETs						
MFE823	20	25	–20	1000–	$3.15	$3.00

ECONOMY DUAL DIODES (CASE 29)

T_J 135°C, I_F 200 mA. $V_{(BR)}$ at I_{BR} 100 µA; C at V_A = zero; t_{rr} at I_R = 10 mA Common cathode except MSD6150, common anode; MSD7000, series

Motorola Type	Min. $V_{(BR)}$ Volts	Maximum		Net Each, Lots of	
		C pF	t_{rr} nsec	1-9	10-49
MSD6100	100	1.5	4.0	$0.53	$0.50
MSD6101	50	2.0	10	.59	.56
MSD6102	70	3.0	100	.44	.42
MSD6150	70	8.0	100	.54	.52

LARGER QUANTITY PRICES AVAILABLE ON REQUEST.

MOTOROLA Semiconductors

Microwave Devices, Transistors and Diodes

DUAL EPICAP TUNING DIODE

C_T diode capacitance at V_R – 3.0 V, f = 1.0 MHz. C_R capacitance ratio $C_3 \cdot C_{30}$, f – 1.0 MHz Q at 3.0 V, 100 MHz

Motorola Type	Case	C_T - 10% pF	Cap. Ratio	Q Min.	Net Ea., Lots of 1-9	10-49
MV104	29	36	2.5	100	$1.13	$1.08
MV104G	29	40	2.5	100	.95	.91
MV109	226	29	5.0	280#	1.13	1.08
MV209	226	29	5.0	200#	1.13	1.08
BB105B	226	2.2*	4.5	225	.76	.73
BB105G	226	2.3*	4.0	150	.73	.70
BB105A	226	2.6*	4.0	225	.73	.70

*At 25 volts. #At 50 MHz.

EPICAP TUNING DIODES

C_T at V_R = 4.0 V, f = 1.0 MHz. Q at V_R = 4.0 V, f = 50 MHz.

Nom. C_T pF	Motorola Type	Cap. Ratio Min.	Q Min.	Max. V_R VDC	Motorola Type	Cap. Ratio Min.	Q Min.	Max. V_R VDC
	Case 51				Case 45			
1.0	**MVI-2097**	2.0	325†	30	....	......	....	.....
2.2	**MVI-2098**	2.0	325†	30	....	......	....	.....
3.3	**MVI-2099**	2.2	300†	30	....	......	....	.....
4.7	**MVI-2100**	2.4	275†	30	....	......	....	.....
6.8	**MVI-2101**	2.7	275†	30	....	......	....	.....
8.2	**MVI-2102**	2.8	275†	30	....	......	....	.....
10	**MVI-2103**	2.8	275†	30	....	......	....	.....
12	**MVI-2104**	2.8	275†	30	....	......	....	.....
15	**MVI-2105**	2.9	275†	30	....	......	....	.....
18	**MVI-2106**	2.9	250†	30	....	......	....	.....
22	**MVI-2107**	2.9	200†	30	....	......	....	.....
27	**MVI-2108**	2.7	200†	30	....	......	....	.....
33	**MVI-2109**	2.7	200†	30	....	......	....	.....
	Case 51				Case 51			
6.8	**1N5139, A**	2.7	350	60	....	......	....	.....
10	**1N5140, A**	2.8	300	60	**MV1866**	3.0	500	60
12	**1N5141, A**	2.8	300	60	**MV1868**	3.0	500	60
15	**1N5142, A**	2.8	250	60	**MV1870**	3.0	400	60
18	**1N5143, A**	2.8	250	60	**MV1871**	3.0	400	60
22	**1N5144, A**	3.2	200	60	**MV1872**	3.2	400	60
27	**1N5145, A**	3.2	200	60	**MV1874**	3.2	300	60
33	**1N5146, A**	3.2	200	60	**MV1876**	3.2	300	60
39	**1N5147, A**	3.2	200	60	**MV1877**	3.2	300	60
47	**1N5148, A**	3.2	200	60	**MV1878**	3.2	300	60
	Case 51				Case 51			
6.8	**1N5461A**	2.7	600	30	**1N5441A**	2.5	450	30
8.2	**1N5462A**	2.8	600	30	**1N5442A**	2.5	450	30
10	**1N5463A**	2.8	550	30	**1N5443A**	2.6	400	30
12	**1N5464A**	2.8	550	30	**1N5444A**	2.6	400	30
15	**1N5465A**	2.8	550	30	**1N5445A**	2.6	400	30
18	**1N5466A**	2.9	500	30	**1N5446A**	2.6	350	30
20	**1N5467A**	2.9	500	30	**1N5447A**	2.6	350	30
22	**1N5468A**	2.9	500	30	**1N5448A**	2.6	350	30
27	**1N5469A**	2.9	500	30	**1N5449A**	2.6	350	30
33	**1N5470A**	2.9	500	30	**1N5450A**	2.6	350	30
39	**1N5471A**	2.9	450	30	**1N5451A**	2.6	300	30
47	**1N5472A**	2.9	400	30	**1N5452A**	2.6	250	30
56	**1N5473A**	2.9	300	30	**1N5453A**	2.6	200	30
68	**1N5474A**	2.9	250	30	**1N5454A**	2.7	175	30
82	**1N5475A**	2.9	225	30	**1N5455A**	2.7	175	30
100	**1N5476A**	2.9	200	30	**1N5456A**	2.7	175	30
	Case 51				Case 51			
6.8	**MV1620**	2.0	300	20	**MV2101**	2.5	450	30
8.2	**MV1622**	2.0	300	20	**MV2102**	2.5	450	30
10	**MV1624**	2.0	300	20	**MV2103**	2.5	400	30
12	**MV1626**	2.0	300	20	**MV2104**	2.5	400	30
15	**MV1628**	2.0	250	20	**MV2105**	2.5	400	30
18	**MV1630**	2.0	250	20	**MV2106**	2.5	350	30
20	**MV1632**	2.0	250	20	....	......	....	.....
22	**MV1634**	2.0	250	20	**MV2107**	2.5	350	30
27	**MV1636**	2.0	200	20	**MV2108**	2.5	300	30
33	**MV1638**	2.0	200	20	**MV2109**	2.5	200	30
39	**MV1640**	2.0	200	20	**MV2110**	2.5	150	30
47	**MV1642**	2.0	200	20	**MV2111**	2.5	150	30
56	**MV1644**	2.0	150	20	**MV2112**	2.6	150	30
68	**MV1646**	2.0	150	20	**MV2113**	2.6	150	30
82	**MV1648**	2.0	150	20	**MV2114**	2.6	100	30
100	**MV1650**	2.0	150	20	**MV2115**	2.6	100	30
	Case 51				Case 51			
15	**MV830**	1.8	30	30	....	......	....	.....
18	**MV831**	1.8	25	30	....	......	....	.....
22	**MV832**	1.8	25	30	....	......	....	.....
27	**MV833**	1.8	25	30	....	......	....	.....
33	**MV834**	1.9	20	30	....	......	....	.....
39	**MV835**	1.9	20	30	....	......	....	.....
47	**MV836**	1.9	15	30	....	......	....	.....
56	**MV837**	1.9	15	30	....	......	....	.....
68	**MV838**	2.0	15	30	....	......	....	.....
82	**MV839**	2.0	10	30	....	......	....	.....
100	**MV840**	2.0	10	30	....	......	....	.....
	Case 51				Case 146			
120	**MV1404**	10	200#	12	**MV1652**	2.6	250*	20
150	**MV1403**	10	200#	12	**MV1654**	2.6	250*	20
180	....	.....	....	....	**MV1656**	2.6	200*	20
200	....	.....	....	....	**MV1658**	2.6	200*	20
220	....	.....	....	....	**MV1660**	2.6	150*	20
250	**MV1405**	10	200#	12	**MV1662**	2.3	150*	20
270	....	.....	....	....	**MV1664**	2.3	100*	20
330	....	.....	....	....	**MV1666**	2.3	100*	20
550	**MV1401**	14	200#	12	....	....	....	.....

†At 100 MHz *At 20 MHz. #At 1 MHz.

NPN-PNP MICRO-T PLASTIC TRANSISTORS (CASE 28)

Micro-T package 0.085" dia. injection-molded plastic package for applications requiring high component mounting density. More detailed information available on request.

GENERAL PURPOSE AND SWITCHING TRANSISTORS

Motorola Type	Max. V_{CEO} V	Oper. h_{FE} Range	Type f_T MHz	Typ. t_{on} @ I_C nsec	mA	Net Ea., Lots 1-9	10-49
			NPN				
MMT76 **MMT3903** **MMCM3903•** **MMT3904** **MMCM3904•**	40	100 µA to 100 mA	300	40*	10	$ 1.22 2.24 29.33 2.24 30.03	$ 1.16 2.14 27.93 2.14 28.60
MMCM2222• **MMT2222**	60	100 µA to 500 mA	300	25†	150	30.58 2.16	29.13 2.05
			PNP				
MMT75 **MMT3905** **MMCM3905•** **MMT3906** **MMCM3906•**	40	100 µA to 100 mA	350	45‡	10	$ 1.22 1.98 30.72 2.17 31.14	$ 1.16 1.89 29.26 2.07 29.66
MMT2907 **MMCM2907•**	60	100 µA to 500 mA	350	30§	150	2.57 30.03	2.44 28.60

•Case 176 hermetically sealed ceramic. *t_{off} = 140 nsec. †t_{off} – 250 nsec. ‡t_{off} - 160 nsec. §t_{off} – 100 nsec.

RF AMPLIFIER AND SWITCHING TRANSISTORS

Motorola Type	Max. V_{CEO} V	Oper. h_{FE} Range	Type f_T MHz	Typ. t_{on} @ I_C nsec	mA	Net Ea., Lots 1-9	10-49
			NPN				
MMT3960	3	1–30 mA	2250	3	10	$ 5.40	$ 5.14
MMT8006 **MMT8007** **MMT8008**	8	.01–10 mA	2200	......	......	11.11 10.63 9.17	10.59 10.13 8.73
MMT5031 **MMT5031A**	14	1–5 mA	2000	......	......	5.72 8.75	5.45 8.34
MMT2857 **MMT2857A**	15	1–20 mA	1400	....	......	3.86 5.40	3.67 5.14
			PNP				
MMT918 **MMT4261**	15 15	3 10	600 1000	....	....	$ 2.08 6.63	$ 1.98 6.31

LOW CURRENT SWITCHING

Motorola Type	Max. V_{CEO} V	Oper. h_{FE} Range	Type f_T MHz	Typ. t_{on} @ I_C nsec	mA	Net Ea., Lots 1-9	10-49
			NPN				
MMT72 **MMT3014**	20	10 mA to 100 mA	400	12	300	$ 1.72 3.33	$ 1.63 3.17
MMT2369 **MMCM2369**	15	10 mA to 100 mA	650	2	10	2.27 29.33	2.17 27.93
			PNP				
MMT3546	12	10–100 mA	850	15	50	$4.14	$3.94

LOW NOISE/HIGH GAIN TRANSISTORS

Motorola Type	Max. V_{CEO} V	Oper. h_{FE} Range	Typ. f_T MHz	Typical NF at I_C dB	A	Net Ea., Lots 1-9	10-49
			NPN				
MMT70 **MMT930** **MMCM930•** **MMT2484** **MMCM2484•**	60	100 µA to 10 mA	90	2.0	10	$ 1.47 1.83 29.33 1.95 29.75	$ 1.40 1.75 27.93 1.86 28.33
			PNP				
MMT71 **MMT3798** **MMCM3798•** **MMT3799** **MMCM3799•**	60	10 µA to 10 mA	140	1.5	100	$ 1.22 3.30 31.00 3.86 31.42	$ 1.16 3.14 29.53 3.67 29.93

•Case 176 hermetically sealed ceramic.

EPICAP PRICES

Motorola Type	Net Ea., Lots 1-9	10-49	Motorola Type	Net Ea., Lots 1-9	10-49
1N5139-1N5148	$5.28	$5.03	**MV830-MV838**	$ 1.98	$ 1.89
1N5139A-1N5148A	6.23	5.94	**MV1401-MV1405**	12.83	12.22
1N5441A-1N5456A	4.55	4.33	**MV1620-MV1646**	2.08	1.98
1N5441B-1N5456B	5.50	5.24	**MV1648-MV1650**	2.08	1.98
1N5441C-1N5456C	6.60	6.28	**MV1652-MV1666**	5.28	5.03
1N5461A-1N5476A	8.80	8.38	**MV1866-MV1878**	9.53	9.08
1N5461B-1N5476B	11.44	10.89	**MV2101-MV2115**	1.32	1.26
1N5461C-1N5476C	14.66	13.97	**MVI-2097-MVI-2109**	2.57	2.44

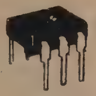
Case 29
TO-92

Case 81A

Case 82
TO-18

Case 209

Case 210



Case 730

Case 234
Actual Size

OPTOELECTRONIC DEVICES

OPTICAL COUPLERS/ISOLATORS

Motorola Type	Case	Isol. Volts	Trans. Ratio % Min.	Min. BV_{CEO} Volts	Net Ea., Lots 1-9	10-49
TRANSISTOR OUTPUT						
TIL112	730	7500	2	20	$1.32	$1.26
TIL115	730	7500	2	20	1.32	1.26
IL15	730	7500	6	30	1.47	1.40
MCT26	730	7500	6	30	1.28	1.22
TIL111	730	7500	8	30	1.32	1.26
TIL114	730	7500	8	30	1.32	1.26
IL12	730	7500	10	20	1.32	1.26
TIL118	730	7500	10	20	1.32	1.26
4N27	730	7500	10	30	1.28	1.22
4N28	730	7500	10	30	1.28	1.22
IL74	730	7500	12.5	20	1.28	1.22
4N25	730	7500	20	30	1.41	1.34
4N26	730	7500	20	30	1.41	1.34
H11A2	730	7500	20	30	2.49	2.37
H11A520	730	7500	20	30	1.47	1.40
IL1	730	7500	20	30	1.47	1.40
MCT2	730	7500	20	30	1.41	1.34
TIL116	730	7500	20	30	1.32	1.26
4N38	730	7500	20	80	1.91	1.82
H11A5	730	7500	30	30	1.47	1.40
H11A1	730	7500	50	30	2.90	2.77
H11A550	730	7500	50	30	1.47	1.40
TIL117	730	7500	50	30	1.32	1.26
4N35	730	7500	100	30	1.61	1.54
4N36	730	7500	100	30	1.53	1.45
4N37	730	7500	100	30	1.35	1.29
H11A5100	730	7500	100	30	2.20	2.10
DARLINGTON TRANSISTOR OUTPUT						
4N31	730	7500	50	30	$1.61	$1.54
H11B3	730	7500	100	25	2.05	1.96
4N29	730	7500	100	30	1.76	1.68
4N30	730	7500	100	30	1.76	1.68
MCA230	730	7500	100	30	1.76	1.68
H11B255	730	7500	100	55	2.05	1.96
H11B2	730	7500	200	25	2.20	2.10
MCA231	730	7500	200	30	2.20	2.10
MOC119	730	7500	300	30	1.47	1.40
TIL119	730	7500	300	30	1.47	1.40
TIL113	730	7500	300	30	1.76	1.68
MOC8030	730	7500	300	80	2.05	1.96
H11B1	730	7500	500	25	2.27	2.17
4N32	730	7500	500	30	2.05	1.96
4N33	730	7500	500	30	2.05	1.96

INFRARED EMITTING DIODES

Infrared (900 nM typ. peak emission wavelength) gallium arsenide emitters provide high power output in light modulators, shaft or position encoders, punched card and tape readers, optical switching and logic circuits. They are spectrally matched for use with silicon detectors.

Motorola Type	Case	Power Output at I_F		Forward Voltage V_F(Typ.)	Net Ea., Lots	
		µW (Typ.)	mA		1-9	10-49
MLED60	234	550	50	1.2	$2.93	$2.79
MLED92	29	150	50	1.2	.81	.77
MLED90	234	350	50	1.2	2.93	2.79
MLED910	81A	150	50	1.2	9.24	8.80
MLED930	209	650	100	1.2	1.83	1.75

PIN SILICON PHOTODIODES

Designed for application in laser detection, light demodulation, detection of radiation from visible and near infrared LEDs, shaft or position encoders, switching and logic circuits or any design requiring radiation sensitivity and stable characteristics. High speed devices with response time of less than 1.0 ns typical. Dark current = 2.0 nA max. at V_R = 20 V; response time = 1.0 ns typ.

Motorola Type	Case	Lens	H = 2.0 mW/cm^2		Net Ea., Lots	
			Sensitivity µA/mW/cm^2	Light Current	1-9	10-49
MRD500	209	Convex	1.2 min.	6.0 µA min.	$5.13	$4.89
MRD510	210	Flat	0.3 min.	1.5 µA min.	5.13	4.89

NPN SILICON PHOTOTRANSISTORS

H is radiation flux density emitted from a tungsten source at 2870 K.

HIGH DENSITY PHOTOTRANSISTORS

Subminiature NPN silicon phototransistors designed for use in card and tape readers, pattern and character recognition equipment, shaft encoders or any design requiring radiation sensitivity, stable characteristics and high stability. Light current at H = 20 mW/cm^2.

Motorola Type	Case	Min. Light Current mA	Max. Dark Current nA	Typ. t_s µs	Net Each, Lots of 1-9	10-49
MRD601	81A	0.5	25	4.8	$11.44	$10.89
MRD602	81A	2.0	25	4.8	12.02	11.45
MRD603	81A	4.0	25	4.8	13.05	12.43
MRD604	81A	7.0	25	4.8	13.93	13.27

*At H = 5.0 mW/cm^2; sensitivity = 0.04 mA/mW/cm^2 at H = 5.0 mW/cm^2. †V_{CC} = 20 V; all others V_{CC} = 30 V. ‡Maximum.

LOW DENSITY PHOTOTRANSISTORS

NPN silicon phototransistors designed for use in industrial inspection, processing and control systems, counters, sorters, switching and logic circuits or any design requiring radiation sensitivity, stable characteristics and moderate mounting density in arrays or single device applications. Sensitivity and light current at H = 5.0 mW/cm^2; dark current at V_{CC} = 20 V.

Motorola Type	Case	Sensitivity mA/mW/cm^5 Min.	Dark Current nA Max.	Light Current mA Min.	Net Ea., Lots 1-9	10-49
MRD300*	82	0.8	25	4.0	$3.67	$3.49
MRD310*	82	0.2	25	1.0	1.66	1.58
MRD3050‡	82	0.02	100	0.1	1.29	1.23
MRD3051‡	82	0.04	100	0.2	1.44	1.37
MRD3054‡	82	0.125–0.5	100	.625–2.5	1.51	1.44
MRD3055‡	82	0.3	100	1.5	1.58	1.51
MRD3056‡	82	0.4	100	2.0	1.82	1.73

*Maximum Switching Time: 6.5 µs; †11 µs; ‡5.5 µs typical.

SILICON PHOTO DARLINGTON AMPLIFIERS

Designed for use where extremely high sensitivity is required. Plastic side reading devices are the most economical detectors available. Sensitivity and light current at H = 2.0 mW/cm^2; dark current at H = 0. Switching time, 400 µsec.

Motorola Type	Case	Sensitivity mA/mW/cm^2 Typ.	Dark Current nA Max.	Light Current mA Typ.	Net Ea., Lots 1-9	10-49
2N5777	29	2.0	100	4.0	$0.88	$0.84
2N5778	29	2.0	100	4.0	1.03	.98
2N5779	29	4.0	100	8.0	1.17	1.12
2N5780	29	4.0	100	8.0	1.32	1.26
MRD14B	29	1.0	100	2.0	.81	.77
MRD360	82	....	100	20	4.91	4.68
MRD370	82	....	100	10	2.27	2.17

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS

ECG No.	*	Description	Net Ea.
A25480	......	Solid state relay	$56.65
A40240	......	Solid state relay, SCR output	43.05
B25240T	......	Solid state relay, triac output	30.75
B40240	......	Solid state relay, SCR output	38.10
B40480	......	Solid state relay, SCR output	53.85
B75240	......	Solid state relay, SCR output	67.20
B75480	......	Solid state relay, SCR output	97.70
F1A005	......	Reed relay, DIP, 5 VDC, 500 ohms, SPST	3.60
F1A005C	......	Reed relay, DIP, 5 VDC, 500 ohms, SPST, diode protected	4.80
F1A012	......	Reed relay, DIP, 12 VDC, 1000 ohms, SPST	3.85
F1A024	......	Reed relay, DIP, 24 VDC, 2150 ohms, SPST	4.00
F2A005	......	Reed relay, DIP, 5 VDC, 140 ohms, DPST	5.35
F2A012	......	Reed relay, DIP, 12 VDC, 500 ohms, DPST	5.50
F2A024	......	Reed relay, DIP, 24 VDC, 2150 ohms, DPST	5.90
HIDiv-1	......	HV divider/focus assy., 240 megohms, 35 kV	6.60
HIDiv-2	......	HV divider/focus assy., 300 megohms, 35 kV	7.10
HIDiv-3	......	HV divider/focus assy., 240 megohms, 35 kV	6.40
HIDiv-4	......	HV divider/focus assy., 300 megohms, 35 kV	9.90
HIDiv-12	......	HV divider/focus assy., 300 megohms, 35 kV	5.90
1V010	......	Varistor, metal oxide, 10 V rms	1.10
1V014	......	Varistor, metal oxide, 14 V rms	1.10
1V015	......	Varistor, metal oxide, 15 V rms	1.10
1V017	......	Varistor, metal oxide, 17 V rms	1.10
1V020	......	Varistor, metal oxide, 20 V rms	1.10
1V035	......	Varistor, metal oxide, 35 V rms	1.10
1V050	......	Varistor, metal oxide, 50 V rms	1.10
1V115	......	Varistor, metal oxide, 115 V rms	1.10
1V130	......	Varistor, metal oxide, 130 V rms	1.31
1V150	......	Varistor, metal oxide, 150 V rms	1.42
1V250	......	Varistor, metal oxide, 250 V rms	1.68
2V010	......	Varistor, metal oxide, 10 V rms	1.86
2V014	......	Varistor, metal oxide, 14 V rms	1.86
2V015	......	Varistor, metal oxide, 15 V rms	1.86
2V017	......	Varistor, metal oxide, 17 V rms	1.86
2V020	......	Varistor, metal oxide, 20 V rms	1.86
2V035	......	Varistor, metal oxide, 35 V rms	1.86
2V050	......	Varistor, metal oxide, 50 V rms	1.86
2V115	......	Varistor, metal oxide, 115 V rms	1.86
2V130	......	Varistor, metal oxide, 130 V rms	1.86
2V150	......	Varistor, metal oxide, 150 V rms	2.21
2V250	......	Varistor, metal oxide, 250 V rms	2.70
2V480	......	Varistor, metal oxide, 480 V rms	4.85
33	T	NPN, Si, audio power amp	5.95
34	T	PNP, Si, audio power amp	5.35
35	T	NPN, Si, horiz output/sw	8.40
36	T	NPN, Si, power amp/sw	4.35
36MP	T	Matched pair of ECG36	9.35
37	T	PNP, Si, power amp/sw	4.60
37MP	T	Matched pair of ECG37	9.90
38	T	PNP, Si, HV power amp/sw	3.30
39	T	PNP, Si, AF power amp	3.80
40	T	NPN, Si, dual, hi gain, lo noise, differential amp, common emitter	1.82
41	T	PNP, Si, dual, hi gain, lo noise, differential amp, common emitter	1.90
42	T	NPN, Si, dual, hi gain, lo noise, differential amp, common emitter	1.84
43	T	PNP, Si, dual, hi gain, lo noise, differential amp, common emitter	1.98
44	T	NPN, Si, dual, hi gain, lo noise, differential amp, common base	1.80
45	T	PNP, Si, dual, hi gain, lo noise, differential amp, common base	2.02
46	T	NPN, Si, Darlington preamp	1.96
47	T	NPN, Si, hi gain, lo noise amp	1.06
48	T	NPN, Si, Darlington amp/sw	1.28
49	T	NPN, Si, AF power amp/driver	3.15
50	T	PNP, Si, AF power amp/driver	2.90
51	T	NPN, Si, HV, hi speed sw	3.85
52	T	NPN, Si, HV, hi speed sw	5.90
53	T	NPN, Si, HV, hi speed sw	11.15
54	T	NPN, Si, AF power amp	3.65
54MP	T	Matched pair of ECG54	8.10
55	T	PNP, Si, AF power amp	4.00
55MCP	T	Matched complementary pair of ECG55 and ECG54	8.75
56	T	NPN, Si, hi gain amp/sw	2.94
57	T	NPN, Si, hi gain amp/sw	5.15
58	T	NPN, Si, hi power audio output	7.20
59	T	PNP, Si, hi power audio output	8.30
60	T	NPN, Si, AF power amp	10.20
60MP	T	Matched pair of ECG60	$21.10
61	T	PNP, Si, AF power amp	11.40
61MP	T	Matched pair of ECG61	23.70
61MCP	T	Matched complementary pair of ECG61 and ECG60	22.30
62	T	NPN, Si, HV horiz output	10.30
63	T	NFN, Si, UHF/microwave amp/mixer	3.15
64	T	NPN, Si, UHF/microwave amp/sw	3.25
65	T	NPN, Si, UHF/microwave amp	1.76
66	FET	MOSFET, N-channel, enhancement, power amp/sw	18.65
67	FET	MOSFET, N-channel, enhancement, power amp/sw	18.65
68	T	PNP, Si, GP, high power amp	9.05
68MCP	T	Matched complementary pair of ECG68 and ECG388	16.70
69	T	NPN, Si, UHF/VHF amp/osc	1.35
70	T	NPN, Si, hi-V PO	79.80
71	T	NPN, Si, hi-current amp, sw	45.25
72	T	NPN, Si, hi-current amp, sw	65.30
73	T	NPN, Si, hi-V amp	45.25
74	T	NPN, Si, amp, sw	37.00
74C00	IC	CMOS quad 2-input NAND gate	1.08
74C02	IC	CMOS quad 2-input NOR gate	.88
74C04	IC	CMOS hex inverter	1.00
74C08	IC	CMOS quad 2-input AND gate	.86
74C10	IC	CMOS triple 3-input NAND gate	.83
74C14	IC	CMOS hex Schmitt trigger	2.11
74C20	IC	CMOS dual 4-input NAND gate	.81
74C30	IC	CMOS 8-input NAND gate	.97
74C32	IC	CMOS quad 2-input OR gate	.88
74C42	IC	CMOS BCD-to-decimal decoder	3.58
74C48	IC	CMOS BCD-to-seven segment decoder	4.60
74C73	IC	CMOS dual J-K flip-flop with clear	2.54
74C74	IC	CMOS dual D type flip-flop	1.67
74C76	IC	CMOS dual J-K flip-flop with clear and preset	2.20
74C85	IC	CMOS 4-bit magnitude comparator	4.90
74C90	IC	CMOS 4-bit decade counter	2.99
74C93	IC	CMOS 4-bit binary counter	2.99
74C95	IC	CMOS 4-bit right-left shift register	3.01
74C107	IC	CMOS dual J-K flip-flop w/clear	2.45
74C151	IC	CMOS 8-channel digital multiplexer	6.10
74C154	IC	CMOS 4-line to 16-line decoder/demultiplexer	8.45
74C157	IC	CMOS quad 2-input multiplexer	5.70
74C161	IC	CMOS binary counter with asynchronous clear	3.13
74C164	IC	CMOS 8-bit parallel-out serial shift register	3.56
74C173	IC	CMOS quad D type flip-flop	2.38
74C174	IC	CMOS hex D type flip-flop	3.04
74C175	IC	CMOS quad D type flip-flop	3.10
74C192	IC	CMOS synchronous 4-bit up/down decade counter	4.95
74C193	IC	CMOS low power Schottky up/down binary counter	4.88
74C221	IC	CMOS dual monostable multivibrator	3.73
74C240	IC	CMOS octal buffer/line driver with inverting 3-state outputs	3.19
74C244	IC	CMOS octal buffer/line driver with non-inverting 3-state outputs	3.17
74C901	IC	CMOS hex inverting CMOS-TTL buffer	1.04
74C902	IC	CMOS hex non-inverting CMOS-TTL buffer	1.04
74C903	IC	CMOS hex inverting PMOS-CMOS/TTL buffer	1.04
74C904	IC	CMOS hex non-inverting PMOS-CMOS/TTL buffer	1.04
74C925	IC	CMOS 4-digit counter with multiplexed 7-segment output driver	14.00
74H00	IC	TTL, high speed quad 2-input NAND gate	1.13
74H01	IC	TTL, high speed quad 2-input NAND gate with open collector	1.13
74H04	IC	TTL, high speed hex inverter	1.28
74H05	IC	TTL, high speed hex inverter with open collector	1.28
74H08	IC	TTL, high speed quad 2-input AND gate	1.28
74H10	IC	TTL, high speed triple 3-input NAND gate	.96
74H11	IC	TTL, high speed triple 3-input AND gate	.96
74H20	IC	TTL, high speed dual 4-input NAND gate	.96
74H21	IC	TTL, high speed dual 4-input AND gate	.96
74H22	IC	TTL, high speed dual 4-input NAND gate with open collector	1.15
74H30	IC	TTL, high speed single 8-input NAND gate	.96
74H40	IC	TTL, high speed dual 4-input NAND buffer	.96

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon.

ECG listing continued on following page.

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
74H50	IC	TTL, high speed dual AND/OR gate inverter/expander	$0.96
74H51	IC	TTL, high speed dual 2-input AND/OR invert gate	.96
74H52	IC	TTL, high speed 2-2-2-3 input AND/OR gate	.96
74H53	IC	TTL, high speed expandable 2-2-2-3 input AND/OR invert gate	.96
74H54	IC	TTL, high speed 2-2-2-3 input AND/OR invert gate	.96
74H55	IC	TTL high speed 2-wide 4-input AND/OR invert gate	.96
74H60	IC	TTL, high speed dual 4-input expander	.96
74H61	IC	TTL, high speed triple 3-input expander	.96
74H62	IC	TTL, high speed 3-2-2-3 input AND/OR expander	.96
74H71	IC	TTL, high speed J-K M/S flip-flop with AND/OR gate inputs	1.20
74H72	IC	TTL, high speed J-K M/S flip-flop with AND gate input	1.20
74H73	IC	TTL, high speed dual J-K M/S flip-flop with separate clears and clocks	1.93
74H74	IC	TTL, high speed dual "D-Type" edge triggered flip-flop	1.35
74H76	IC	TTL, high speed dual J-K M/S flip-flop with separate presets, clears and clocks	1.50
74H78	IC	TTL, high speed dual M/S flip-flop with separate presets and common clear and clock	1.50
74H86	IC	TTL, high speed quad exclusive OR gate	1.58
74H87	IC	TTL, high speed 4-bit true/complement-zero/one element	7.28
74H101	IC	TTL, high speed J-K edge trigger flip-flop with AND/OR inputs	1.76
74H102	IC	TTL, high speed J-K edge trigger flip-flop with AND inputs	1.40
74H103	IC	TTL, high speed J-K negative edge triggered flip-flop with separate clears and clocks	1.40
74H106	IC	TTL, high speed dual J-K negative edge triggered flip-flop with separate presets, clocks, and clears	1.40
74H108	IC	TTL, high speed dual J-K negative edge triggered flip-flop with separate presets and common clear and clocks	1.40
74H183	IC	TTL, high speed dual carry/save full adder	5.70
74L93	IC	TTL 4-bit binary counter	3.20
74LS00	IC	TTL low power Schottky quad 2-input positive NAND gate	.79
74LS01	IC	TTL low power Schottky quad 2-input positive NAND gate with open collector outputs	.79
74LS02	IC	TTL low power Schottky quad 2-input positive NOR gate	.79
74LS03	IC	TTL low power Schottky quad 2-input positive NAND gate with open collector output	.79
74LS04	IC	TTL low power Schottky hex inverters	.97
74LS05	IC	TTL low power Schottky hex inverters with open collector output	1.08
74LS08	IC	TTL low power Schottky quad 2-input positive AND gate	.86
74LS09	IC	TTL low power Schottky quad 2-input AND gate with open collectors	.65
74LS10	IC	TTL low power Schottky triple 3-input positive NAND gate	.77
74LS11	IC	TTL low power Schottky triple 3-input positive AND gate	.77
74LS12	IC	TTL low power Schottky triple 3-input NAND gate with open collectors	.79
74LS13	IC	TTL low power Schottky dual 4-input NAND Schmitt trigger	1.28
74LS14	IC	TTL low power Schottky hex Schmitt trigger	2.97
74LS15	IC	TTL low power Schottky triple 3-input AND gate with open collectors	.79
74LS20	IC	TTL low power Schottky dual 4-input positive NAND gate	.96
74LS21	IC	TTL low power Schottky dual 4-input AND gate	.77
74LS22	IC	TTL low power Schottky dual 4-input NAND gate with open collectors	.79
74LS26	IC	TTL low power Schottky quad 2-input high voltage interface NAND gate	.86
74LS27	IC	TTL low power Schottky triple 3-input positive NOR gate	.88
74LS30	IC	TTL low power Schottky 8-input positive NAND gate	.70
74LS32	IC	TTL low power Schottky quad 2-input positive OR gate	.92
74LS37	IC	TTL low power Schottky quad 2-input NAND buffers	$0.86
74LS38	IC	TTL low power Schottky quad 2-input positive NAND buffers with open collector output	.97
74LS40	IC	TTL low power Schottky dual 4-input NAND buffers	.79
74LS42	IC	TTL low power Schottky 4-line to 10-line decoder (1 of 10) BCD-to-decimal	2.54
74LS47	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.48
74LS48	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.48
74LS49	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.34
74LS51	IC	TTL low power Schottky dual AND/OR invert gate	.70
74LS54	IC	TTL low power Schottky 4-wide 2-input AND/OR invert gate	.86
74LS55	IC	TTL low power Schottky 2-wide, 4-input AND/OR invert gate	.92
74LS73	IC	TTL low power Schottky dual J-K flip-flop	1.06
74LS74A	IC	TTL low power Schottky dual "D type" flip-flop	1.06
74LS75	IC	TTL low power Schottky 4-bit bistable latches	1.48
74LS76A	IC	TTL low power Schottky dual J-K flip-flop with preset and clear	.99
74LS78	IC	TTL dual J-K flip-flop with preset, common clear and clock	.95
74LS83A	IC	TTL low power Schottky 4-bit full adder	2.72
74LS85	IC	TTL low power Schottky 4-bit magnitude comparator	3.56
74LS86	IC	TTL low power Schottky quad exclusive OR gate	1.28
74LS90	IC	TTL low power Schottky decade counter	1.28
74LS92	IC	TTL divide-by-12 counter	1.06
74LS93	IC	TTL low power Schottky 4-bit binary counter	1.73
74LS107	IC	TTL low power Schottky dual J-K flip-flop	1.06
74LS109A	IC	TTL low power Schottky dual J-K positive edge triggered flip-flop	1.15
74LS112A	IC	TTL low power Schottky dual J-K negative edge triggered flip-flop with preset and clear	.86
74LS113	IC	TTL dual J-K edge-triggered flip-flop	.94
74LS114	IC	TTL dual J-K edge-triggered flip-flop with preset, common clock and clear	.94
74LS123	IC	TTL low power Schottky dual retriggerable monostable multivibrator	2.27
74LS125A	IC	TTL low power Schottky quad buffer with 3-state output	1.40
74LS126	IC	TTL quad 3-state buffer, high enable	1.10
74LS132	IC	TTL low power Schottky quad 2-input NAND Schmitt triggers	2.14
74LS136	IC	TTL low power Schottky quad exclusive OR gate with open collector output	1.06
74LS138	IC	TTL low power Schottky 1-of-8 decoder/demultiplexer	2.32
74LS139	IC	TTL low power Schottky dual 2- to-4 line decoder/multiplexer	1.76
74LS147	IC	TTL low power Schottky 10-line dec. to 4-line BCD priority encoder	3.90
74LS151	IC	TTL low power Schottky 8-input multiplexer	2.57
74LS153	IC	TTL low power Schottky dual 4-input multiplexer	2.54
74LS155	IC	TTL low power Schottky dual 2-to-4 line decoder/multiplexer	2.54
74LS156	IC	TTL dual 1-of-4 decoder, open collector	1.30
74LS157	IC	TTL low power Schottky quad 2-input multiplexer; non-inverting	2.66
74LS158	IC	TTL quad 2-input multiplexer, inverting	1.04
74LS160A	IC	TTL low power Schottky synchronous decade counter direct clear	2.65
74LS161A	IC	TTL low power Schottky 4-bit binary counter; asynchronous reset	3.40
74LS162A	IC	TTL low power Schottky synchronous decade counter with synchronous clear	2.65
74LS163A	IC	TTL low power Schottky 4-bit binary counter; synchronous reset	3.40
74LS164	IC	TTL low power Schottky 8-bit shift register serial in-parallel out	3.40
74LS170	IC	TTL low power Schottky 4 by 4 register file	4.12
74LS173	IC	TTL quad 3-state D register	1.37
74LS174	IC	TTL low power Schottky hex "D-type" flip-flop with clear	3.00
74LS175	IC	TTL low power Schottky quad "D-type" flip-flop with clear	2.65

***D**, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
74LS190	IC	TTL low power Schottky synchronous up/down counter with mode control	$2.65
74LS191	IC	TTL low power Schottky up/down binary counter	4.12
74LS192	IC	TTL low power Schottky synchronous up/down counter dual clock with clear	2.27
74LS193	IC	TTL low power Schottky up/down binary counter	3.92
74LS195A	IC	TTL low power Schottky 4-bit shift register	2.84
74LS196	IC	TTL presettable decade counter	1.76
74LS197	IC	TTL presettable 4-bit binary counter	1.67
74LS221	IC	TTL low power Schottky dual monostable multivibrator with Schmitt trigger	3.20
74LS240	IC	TTL low power Schottky octal 3-state driver	3.91
74LS241	IC	TTL low power Schottky octal 3-state driver	3.91
74LS242	IC	TTL low power Schottky quad bus transceiver	3.56
74LS243	IC	TTL low power Schottky quad bus transceiver	3.56
74LS244	IC	TTL low power Schottky octal 3-state driver	3.87
74LS247	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.34
74LS248	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.34
74LS249	IC	TTL low power Schottky BCD-to-seven segment decoder/driver	2.34
74LS251	IC	TTL low power Schottky data sel/mpxr with true and inverted outputs	1.10
74LS253	IC	TTL low power Schottky dual 4-input multiplexer; 3-state	2.84
74LS257	IC	TTL low power Schottky quad 2-input multiplexer; 3-state	2.92
74LS258	IC	TTL low power Schottky quad data selector/multiplexer with inverted 3-state outputs	2.54
74LS259	IC	TTL low power Schottky 8-bit addressable latch	6.10
74LS266	IC	TTL low power Schottky quad exclusive NOR gate with open collector output	1.04
74LS273	IC	TTL low power Schottky octal "D-type" flip-flop with clear	6.75
74LS279	IC	TTL low power Schottky quad set-reset latch	1.28
74LS280	IC	TTL low power Schottky 9-bit odd/even parity generator/checker	7.50
74LS283	IC	TTL 4-bit binary adder	1.35
74LS290	IC	TTL decade counter	1.37
74LS293	IC	TTL 4-bit binary counter	1.42
74LS298	IC	TTL low power Schottky quad 2-input multiplexer with output latch	3.33
74LS348	IC	TTL low power Schottky 8-line to 3-line priority encoder	3.85
74LS352	IC	TTL low power Schottky dual 4-line to 1-line data sel/mpxr	1.93
74LS353	IC	TTL low power Schottky dual 4-line to 1-line data sel/mpxr with 3-state outputs	1.93
74LS363	IC	TTL low power Schottky octal 3-state "D" latch	3.51
74LS364	IC	TTL low power Schottky 3-state "D" flip-flop	3.51
74LS365A	IC	TTL hex 3-state buffer, common enable	1.15
74LS366A	IC	TTL low power Schottky hex bus drivers, inverted data 3-state output, gated enable inputs	1.28
74LS367	IC	TTL low power Schottky hex buffer, 4-bit and 2-bit; 3-state	1.33
74LS368	IC	TTL low power Schottky hex bus drivers, inverted data 3-state output, 4-and-2-line enable inputs	1.15
74LS373	IC	TTL low power Schottky octal 3-state "D" latch	2.86
74LS374	IC	TTL octal 3-state D flip-flops	2.61
74LS377	IC	TTL low power Schottky octal "D-type" flip-flop with enable	5.20
74LS378	IC	TTL low power Schottky hex "D" flip-flop	2.18
74LS379	IC	TTL low power Schottky quad "D" flip-flop	2.23
74LS390	IC	TTL low power Schottky dual decade ctr	1.98
74LS393	IC	TTL low power Schottky dual 4-bit binary counter	2.07
74LS395A	IC	TTL low power Schottky 4-bit univ. shift register with 3-state outputs	2.00
74LS490	IC	TTL low power Schottky dual decade ctr	3.24
74LS540	IC	TTL low power Schottky octal 3-state inverting buffer/driver	2.57
74LS541	IC	TTL low power Schottky octal 3-state non-inverting buffer/driver	2.57
74LS624	IC	TTL low power Schottky VCO	2.52
74LS625	IC	TTL low power Schottky dual VCO with complementary outputs	$3.28
74LS626	IC	TTL low power Schottky dual VCO with complementary outputs and enable control	3.28
74LS627	IC	TTL low power Schottky dual VCO	3.28
74LS629	IC	TTL low power Schottky dual VCO with enable	3.28
74LS640	IC	TTL low power Schottky octal inverting bus transceivers, 3-state outputs	3.55
74LS641	IC	TTL low power Schottky octal non-inverting bus transceivers with open collector outputs	3.55
74LS642	IC	TTL low power Schottky octal inverting bus transceivers with open collector outputs	3.55
74LS643	IC	TTL low power Schottky octal bus transceivers with inverting and non-inverting 3-state outputs	4.40
74LS645	IC	TTL low power Schottky octal non-inverting bus transceivers with 3-state outputs	3.55
74LS670	IC	TTL low power Schottky 4-by-4 register file, simultaneous read/write 3-state output	4.48
74S00	IC	TTL, ultra-high speed quad 2-input positive NAND gates	.88
74S02	IC	TTL, ultra-high speed quad 2-input positive NOR gates	.88
74S03	IC	TTL, ultra-high speed quad 2-input positive NAND gates with open collector output	.88
74S04	IC	TTL, ultra-high speed hex inverters	1.09
74S05	IC	TTL, ultra-high speed hex inverters with open collectors	1.09
74S08	IC	TTL, ultra-high speed quad 2-input AND gates	.93
74S09	IC	TTL, ultra-high speed quad 2-input positive AND gates with open collector	.93
74S10	IC	TTL, ultra-high speed triple 3-input positive NAND gates	1.01
74S11	IC	TTL, ultra-high speed triple 3-input positive AND gates	1.01
74S15	IC	TTL, ultra-high speed triple 3-input positive AND gates with open collector outputs	1.01
74S20	IC	TTL, ultra-high speed dual 4-input positive NAND gates	1.01
74S22	IC	TTL, ultra-high speed dual 4-input positive NAND gates with open collector outputs	1.01
74S30	IC	TTL, ultra-high speed single 8-input positive NAND gates	1.01
74S40	IC	TTL, ultra-high speed dual 4-input positive NAND buffers	.88
74S51	IC	TTL, ultra-high speed expendable dual 2-wide, 2-input AND/OR invert gates	.88
74S64	IC	TTL, ultra-high speed 4-2-3-2 input AND/OR invert gates	.88
74S65	IC	TTL, ultra-high speed 4-2-3-2 input AND/OR invert gates with open collector	.88
75S74	IC	TTL, ultra-high speed dual D-type edge-triggered flip-flops	1.58
74S86	IC	TTL, ultra-high speed quad 2-input exclusive OR gates	1.58
74S112	IC	TTL, ultra-high speed dual J-K edge-triggered flip-flops	1.84
74S113	IC	TTL, ultra-high speed dual J-K edge-triggered flip-flops with individual J-K preset and clock inputs	1.93
74S114	IC	TTL, ultra-high speed dual J-K edge-triggered flip-flops with common clock and common clear and individual J-K and preset inputs	2.00
74S124	IC	TTL, ultra-high speed dual voltage controlled oscillator	4.55
74S133	IC	TTL, ultra-high speed 13 input NAND gate	1.08
74S134	IC	TTL, ultra-high speed 12 input NAND gate	1.09
74S138	IC	TTL, ultra-high speed 3-line-to-8-line decoder/demodultiplexer	4.84
74S140	IC	TTL, ultra-high speed dual 4-input NAND line drivers	1.09
74S151	IC	TTL, ultra-high speed 8-input data selector/multiplexer with complementary outputs	5.26
74S153	IC	TTL, ultra-high speed dual 4-line-to-1-line data selectors/multiplexers	4.48

***D**, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
74S157	IC	TTL, ultra-high speed quad 2-line-to-1-line data selectors/multiplexers with true data outputs	$4.70
74S158	IC	TTL, ultra-high speed quad 2-line-to-1-line data selector/multiplexer with inverted data output	4.70
74S174	IC	TTL, ultra-high speed hex D-type flip-flops with clear	7.69
74S175	IC	TTL, ultra-high speed quad D-type flip-flops with clear	5.55
74S181	IC	TTL, ultra-high speed arithmetic logic units/function generator	17.45
74S194	IC	TTL, ultra-high speed 4-bit bidirectional universal shift register	5.50
74S251	IC	TTL, ultra-high speed 1-of-8-multiplexer	5.26
74S258	IC	TTL, ultra-high speed quad 2-line-to-1-line data selectors/multiplexers	4.70
75	T	NPN, Si high-power amp, sw	26.45
76	T	NPN, Si CATV amp	12.55
76MP	T	Matched pair of ECG76	29.70
77	T	NPN, Si CATV amp	4.09
78	T	NPN, Si RF PO CB, 3 W	4.30
79	T	NPN, Si RF PO CB, 9 W	5.72
80	T	NPN, Si hi-V sw, horiz. driver	3.27
80C95	IC	CMOS hex 3-state buffer with common enable	1.21
80C96	IC	CMOS hex 3-state buffer with common enable	1.21
80C97	IC	CMOS hex non-inverting buffer	1.93
81	T	NPN, Si dual VHF amp, sw	5.87
82	T	PNP, Si dual VHF amp, sw	7.65
83	T	NPN, Si dual gen. purpose amp	1.88
84	T	PNP, Si dual gen. purpose amp	3.60
85	T	NPN, Si RF, IF, AF amp, sw	.88
86	T	NPN, Si hi-gain amp	6.71
87	T	NPN, Si hi-power AF amp, sw	8.28
87MP	T	Matched pair of ECG87	17.55
88	T	PNP, Si hi-power amp, sw	8.55
88MP	T	Matched pair of ECG88	17.91
88MCP	T	Matched complementary pair of ECG88 and ECG87	17.55
89	T	NPN, Si integrated transistor/damper diode, horiz. defl.	11.29
90	T	NPN, Si hi-V amp	1.40
91	T	PNP, Si hi-V amp	1.40
92	T	NPN, Si hi-power AF PO	6.05
93	T	PNP, Si hi-power AF PO	6.70
93L08	IC	TTL low power dual 4-bit latch	7.76
93L16	IC	TTL low power synchronous 4-bit binary latch	5.58
93MCP	T	Matched complementary pair of ECG93 and ECG92	11.55
94	T	NPN, Si hi-V amp	4.70
95	T	NPN, Si hi-V amp, isolated stud	32.10
96	T	NPN, Si power amp, sw, isolated stud	37.05
96L02	IC	TTL low power dual retriggerable/resettable monostable multivibrator	2.41
96LS02	IC	TTL low power Schottky dual retriggerable/resettable monostable multivibrator	2.86
96S02	IC	TTL Schottky dual retriggerable/resettable monostable multivibrator	4.27
97	T	NPN, Si power Darlington amp, sw	12.00
98	T	NPN, Si power Darlington amp, sw	18.99
99	T	NPN, Si power Darlington amp, sw	30.60
100	T	PNP, Ge RF/IF A osc, mxr, AM	2.12
101	T	NPN, Ge RF/IF A osc, mxr, AM	2.36
102	T	PNP, Ge AF preamp, driver, PO	1.86
102A	T	PNP, Ge AF preamp, driver, PO	1.68
103	T	NPN, Ge AF preamp, driver, PO	2.58
103A	T	NPN, Ge AF preamp, driver, PO	1.90
104	T	PNP, Ge AF PO	2.76
104MP	T	PNP, Ge matched pair ECG104	6.20
105	T	PNP, Ge AF PO	9.40
106	T	PNP, Si RF/IF amp, osc, mixer, AM/FM	.95
107	T	NPN, Si RF/IF amp, osc, mixer, UHF/VHF	1.35
108	T	NPN, Si RF/IF/video amp, osc, mixer, UHF/VHF	1.64
109	D	Ge, general purpose, 75 V PRV	.45
110MP	D	Ge, matched pair	.54
112	D	Si, UHF TV mixer	.87
113A	D	Dual, Se horiz. AFC, common cathode	.77
114	D	Dual, Se horiz. AFC, series connected	.60
115	D	Dual, Se horiz. AFC, common anode	.60
116	R	Si, rated 600 V PRV, 1.0 amp	.66
117A	R	Si, rated 1000 V PRV, 1.0 amp	.72
118	R	Se, TV hi-volt, focus, 7.5 kV PRV	2.95
119	R	Se, TV boost, 560 V PRV	$1.35
120	R	Se, TV convergence, rated 18 V PRV	1.96
121	T	PNP, Ge, AF PO	3.60
121MP	T	PNP, Ge, matched pair ECG121	7.70
123	T	NPN, Si AF preamp, driver, video amp, sync separator	1.15
123A	T	NPN, Si AF/RF amp	1.39
123AP	T	NPN, Si AF/RF amp	1.17
124	T	NPN, Si high-voltage AF PO	2.30
125	R	Si, rated 1000 V PRV, 2.5 amps	.79
126A	T	PNP, Ge RF/IF amp, osc, mxr, AM/VHF	5.85
127	T	PNP, Ge deflection amp, AF PO	7.50
128	T	NPN, Si AF preamp, driver video A	1.95
129	T	PNP, Si AF preamp, driver video A	1.98
129MCP	T	Matched complementary pair of ECG129 and ECG128	4.15
130	T	NPN, Si AF PO	3.90
130MP	T	NPN, Si matched pair ECG130	8.40
131	T	PNP, Ge AF PO	2.84
131MP	T	PNP, Ge matched pair ECG131	6.25
134A	ZD	Rated 3.6 V, 1 watt, 5%	.92
135A	ZD	Rated 5.0 V, 1 watt, 5%	.92
136A	ZD	Rated 5.6 V, 1 watt, 5%	.92
137A	ZD	Rated 6.2 V. 1 watt, 5%	.92
138A	ZD	Rated 7.5 V, 1 watt, 5%	.92
139A	ZD	Rated 9.1 V, 1 watt, 5%	.92
140A	ZD	Rated 10.0 V, 1 watt, 5%	.92
141A	ZD	Rated 11.5 V, 1 watt, 5%	.92
142A	ZD	Rated 12.0 V, 1 watt, 5%	.92
143A	ZD	Rated 13.0 V, 1 watt, 5%	.92
144A	ZD	Rated 14.0 V, 1 watt, 5%	.92
145A	ZD	Rated 15.0 V, 1 watt, 5%	.92
146A	ZD	Rated 27.0 V, 1 watt, 5%	.92
147A	ZD	Rated 33.0 V, 1 watt, 5%	.92
148A	ZD	Rated 55.0 V, 1 watt, 5%	.92
149A	ZD	Rated 62.0 V, 1 watt, 5%	.92
150A	ZD	Rated 82.0 V, 1 watt, 5%	.92
151A	ZD	Rated 110.0 V, 1 watt, 5%	.92
152	T	NPN, Si AF PO	2.39
152MP	T	Matched pair of ECG152	5.41
153	T	PNP, Si AF PO	2.90
153MCP	T	Matched complementary pair of ECG153 and ECG152	5.45
154	T	NPN, Si video output	3.39
155	T	NPN, Ge AF PO	3.42
156	R	Si, rated 1000 V PRV, 3 amps	1.30
157	T	NPN, Si high-voltage AF PO	2.30
158	T	PNP, Ge AF PO	1.86
159	T	PNP, Si AF preamp, driver	1.64
159MCP	T	Matched complementary pair of ECG159 and ECG123AP	3.20
160	T	PNP, Ge RF/IF amp, osc, mxr, AM/FM	2.63
161	T	NPN, Si video IF amp	1.99
162	T	NPN, Si vertical deflection	8.40
163A	T	NPN, Si horizontal deflection	10.75
164	T	NPN, Si vertical deflection	8.40
165	T	NPN, Si horizontal deflection	13.50
166	R	Si, bridge rated 100 V PRV, 2 amps	1.76
167	R	Si, bridge rated 200 V PRV, 2 amps	2.12
168	R	Si, bridge rated 400 V PRV, 2 amps	2.42
169	R	Si, bridge rated 600 V PRV, 2 amps	3.05
170	R	Si, bridge rated 1000 V PRV, 2 amps	4.95
171	T	NPN, Si AF/video amplifier	2.41
172A	T	NPN, Si Darlington amp, AF, switch	.90
173BP	D	Si, damper rated 5000 V PRV	8.90
175	T	NPN, Si AF PO	2.55
176	T	PNP, Ge AF PO	4.16
177	D	Si, GP detector rated 200 V PRV	.99
178MP	D	Si, AFC, AFT rated 50 V PRV	.95
179	T	PNP, Ge AF amp	12.80
179MP	T	Matched pair of ECG179	26.40
180	T	PNP, Si AF amp	8.84
180MCP	T	Matched complementary pair of ECG180 and ECG181	17.15
181	T	NPN, Si AF amp	7.50
181MP	T	Matched pair of ECG181	15.70
182	T	NPN, Si AF PO	4.68
183	T	PNP, Si AF PO	5.25
184	T	NPN, Si AF PO	2.10
184MP	T	Matched pair of ECG184	4.85
185	T	PNP, Si AF PO	2.49
185MCP	T	Matched complementary pair of ECG185 and ECG184	5.00
186	T	NPN, Si AF PO	2.39
186A	T	NPN, Si AF PO/CB driver	2.39
187	T	PNP, Si AF PO	2.50
187A	T	PNP, Si AF PO	2.50
188	T	NPN, Si AF driver, PO	2.40
189	T	PNP, Si AF driver, PO	2.66
190	T	NPN, Si AF, PO, horiz, driver	3.10
191	T	NPN, Si hi-V AF/video amp	3.98

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
192	T	NPN, Si AF PO	$ 1.80
192A	T	NPN, Si AF PO	1.80
193	T	PNP, Si AF PO	1.86
193A	T	PNP, Si AF PO	1.86
194	T	NPN, Si hi-V, GP amp	1.05
195A	T	NPN, Si RF PO, 27 MHz	4.40
196	T	NPN, Si AF PO	2.99
197	T	PNP, Si AF PO	2.72
198	T	NPN, Si hi-V AF, switch	3.00
199	T	NPN, Si lo-noise hi-gain preamp	.95
202RP	......	Circuit breaker rated 1 amp	1.91
204RP	......	Circuit breaker rated 2 amps	2.48
205RP	......	Circuit breaker rated 3 amps	2.70
206RP	......	Pilot light assembly rated 6 V	2.40
207RP	......	Pilot light assembly rated 120 V	2.40
209	......	Transistor socket, TO-3 power (2/pkg.)	.33
210	T	PNP, Si AF PO, switch	1.99
211	T	PNP, Si AF PO, switch	2.29
213	T	PNP, Ge hi-current, power	13.15
218	T	PNP, Si AF PO	5.25
219	T	PNP, Si AF PO, switch	6.49
219MCP	T	Matched complementary pair of ECG219 and ECG130	10.80
220	MOS FET	One gate, N-channel, VHF amp/mixer	2.68
221	MOS FET	Dual gate, N-channel, VHF amp/mixer	2.85
222	MOS FET	Dual gate protected, N-channel, VHF amp/mixer	3.07
224	T	NPN, Si RF PO 27 MHz	8.55
225	T	NPN, Si AF, video switch	5.67
226	T	PNP, Ge AF PO	3.20
226MP	T	PNP, Ge matched pair ECG226	6.90
228A	T	NPN, Si sw, amp, audio-video output	1.31
229	T	NPN, Si VHF osc, mixer, TV IF amp	1.74
230	SCR	Horiz. deflection switching	5.65
231	SCR	Horiz. deflection switching	6.00
232	T	PNP, Si Darlington amp	1.04
233	T	NPN, Si final video IF amp	1.02
234	T	PNP, Si audio preamp	1.00
235	T	NPN, Si hi-frequency PO	6.30
236	T	NPN, Si, VHF PO (13 w at 50 MHz)	10.40
237	T	NPN, Si, VHF PO (3 w at 27 MHz)	8.10
238	T	NPN, Si, Horiz, Defl	15.75
239	SCS	Switching	3.63
241	T	NPN, Si, AF PO, switch	2.42
242	T	PNP, Si, AF PO, switch	2.52
243	T	NPN, Darl 80 V, 8 A, hfe = 3000 (typ.)	2.80
244	T	PNP, Darl 80 V, 8 A, hfe = 3000 (typ)	3.63
245	T	NPN, Darl 80 V, 10 A, hfe = 4000 (typ)	4.55
246	T	PNP, Darl 80 V, 10 A, hfe = 4000 (typ)	5.80
247	T	NPN, Darl 100 V, 12 A, hfe = 3500 (typ)	5.25
248	T	PNP, Darl 100 V, 12 A, hfe = 3500 (typ)	6.42
249	T	NPN, Darl 100 V, 16 A, hfe = 3500 (typ)	8.38
250	T	PNP, Darl 100 V, 16 A, hfe = 3500 (typ)	8.50
251	T	NPN, Darl 100 V, 20 A, hfe = 2400 (typ)	8.38
252	T	PNP, Darl 100 V, 20 A, hfe = 4000 (typ)	8.50
253	T	NPN, Darl 80 V, 4 A, hfe = 2000 (typ)	2.18
254	T	PNP, Darl 80 V, 4 A, hfe = 2000 (typ)	2.41
257	T	NPN, Darl 80 V, 5 A, hfe = 750 (min.)	2.75
258	T	PNP, Darl 80 V, 5 A, hfe = 750 (min)	3.65
259	T	NPN, Darl 100 V, 8 A, hfe = 2500 (typ)	2.94
260	T	PNP, Darl 100 V, 8 A, hfe = 2500 (typ)	4.15
261	T	NPN, Darl 80 V, 8 A, hfe = 1000 (min)	1.95
262	T	PNP, Darl 80 V, 8 A, hfe = 1000 (min)	2.55
263	T	NPN, Darl 80 V, 10 A, hfe = 1000 (min)	2.40
264	T	PNP, Darl 80 V, 10 A, hfe = 1000 (min)	2.93
265	T	NPN, Darl 50 V, 500 mA, hfe = 10K (min)	1.15
266	T	NPN, Darl 50 V, 500 mA, hfe = 40K (min)	1.42
267	T	NPN, Darl 30 V, 500 mA, hfe = 90K (min)	1.07
268	T	NPN, Darl 50 V, 2 A, hfe=1000 (min.)	1.25
269	T	PNP, Darl 50 V 2 A, hfe=1000 (min)	1.34
270	T	NPN, Darl 100 V, 10 A, hfe=1000 (min)	5.15
271	T	PNP, Darl 100 V, 10 A, hfe=1000 (min)	5.25
272	T	NPN, Darl 40 V, 2 A, hfe=25K (min)	1.34
273	T	PNP, Darl 40 V, 2 A, hfe=25K (min)	1.57
274	T	NPN, Darl 80 V, 4 A, hfe=3000 (type)	2.80
275	T	PNP, Darl 80 V, 4 A, hfe=3000 (typ)	3.40
276	GCS	Gate controlled switch, TV horiz output	10.95
277	T	NPN, Si, TV vertical output	7.50
278	T	NPN, Si, broad-band RF amp for CATV and MATV systems	2.99
279A	GCS	Si, gate controlled switch	7.50
280	T	NPN, Si, AF PO, 140 V, 12 A	6.30
280MP	T	Matched pair of ECG280	13.10
281	T	PNP, Si, AF PO, 140 V, 12 A	8.20
281MCP	T	Matched complementary pair of ECG281 and ECG280	15.20
282	T	NPN, Si, CB RF power output	6.60
283	T	NPN, Si, Hi-volt, hi current, TV horiz output and switching applications	$ 9.90
284	T	NPN, hi, AF PO, 180 V, 16 A	9.97
284MP	T	Matched pair of ECG284	20.54
285	T	PNP, Si, AF PO, 180 V, 16 A	10.95
285MCP	T	Matched complementary pair of ECG285 and ECG 284	21.40
286	T	NPN, Si, TV horiz output, power amp, switching	8.45
287	T	NPN, Si, 300 V, gen. purp. amp	.86
288	T	PNP, Si, hi voltage (300 V) gen. purp. amp	.98
289A	T	NPN, Si AF PO 0.6W	1.10
289AMP	T	Matched pair of ECG289A	2.69
290A	T	PNP, SI AF PO 0.6W	1.38
290AMCP	T	Matched Complementary pair of ECG290A and ECG289A	2.82
291	T	NPN, Si, TV vert defl	2.97
292	T	PNP, Si, TV vert defl	3.25
292MCP	T	Matched complementary pair of ECG292 and ECG291	6.15
293	T	NPN, Si, AF power amp	1.64
293MP	T	Matched pair of ECG293	3.65
294	T	PNP, Si, AF power amp	1.63
295	T	NPN, Si, RF power output/driver for CB	3.20
297	T	NPN, Si, audio driver/power amp	1.64
297MP	T	Matched pair of ECG297	3.65
298	T	PNP, Si, audio driver/power amp	1.54
299	T	NPN, Si, RF driver/power output for CB	3.22
300	T	NPN, Si, audio power output	3.25
300MP	T	Matched pair of ECG300	6.65
302	T	NPN, Si, RF driver/power output for CB	3.57
304A Kit	......	Kit of 24 most popular ECG transistors	93.80
306	T	NPN, Si, RF driver/power output	3.80
307	T	NPN, Si, audio power output	3.90
308	.....	Integrated thyristor/damper diode, horiz defl comm. sw.	9.55
308P	.....	Integrated thyristor/damper diode, horiz deflection comm sw	8.70
309K	IC	Regulator, 5 V, 1 amp	4.50
310	.....	Integrated thyristor/damper diode, horiz defl trace sw.	9.55
311	T	NPN, Si, VHF/UHF RF power amp/driver, CATV/MATV	2.50
312	FET	N-ch., low-noise VHF/UHF amp	1.34
313	T	NPN, Si, low-noise VHF RF amp, micro disc	2.97
314	SCR	Si, power regulator switch	9.80
315	T	NPN, Si, driver/amp for CB	2.76
316	T	NPN, Si, low-noise UHF amp, ft= 1400 MHz min	3.30
317	T	NPN, Si, RF power output, 70 w at 30 MHz	29.40
318	T	NPN, Si, PF power output, 50 w at 30 MHz	23.80
319P	T	NPN, Si, AGC control, video IF	1.65
320, F	T	NPN, Si, RF power output, 40 w at 175 MHz	28.60
321	T	NPN, Si, horizontal deflection	10.55
322	T	NPN, Si, RF power amplifier, CB	2.68
323	T	PNP, Si, AF power amplifier	4.30
324	T	NPN, Si, AF power amplifier	4.50
325	T	NPN, Si, RF power amplifier	32.65
326	FET	P-Channel, AF and general purpose amplifier	1.72
327	T	NPN, Si, power amplifier, SW	19.55
328	T	NPN, Si, power amplifier, SW	11.50
329	T	NPN, Si, RF power amplifier, CB	5.80
330	T	PNP, Ge, fast power switch	11.70
330W	T	ECG330 with welded-on wire leads	12.15
331	T	NPN, Si AF PO SW	2.92
331MP	T	Matched pair of ECG331	6.47
332	T	PNP, Si, AF PO SW	3.20
332MCP	T	Matched complementary pair of ECG332 and ECG331	6.85
333	T	NPN, Si, RF PO, 14–30 MHz, 60 W	23.20
334	T	NPN, Si, RF PO, 14–30 MHz, 60 W	23.65
335	T	NPN, Si, RF PO, 14–30 MHz, 80 W	32.85
336	T	NPN, Si, RF PO, 14–30 MHz, 80 W	32.95
337	T	NPN, Si, RF driver, 27–50 MHz, 8 W	18.15
338, F	T	NPN, Si, RF PO, 27–50 MHz, 20 W	20.35
339	T	NPN, Si, RF PO, 27–50 MHz, 40 W	26.30
340	T	NPN, Si, RF PO, 136–174 MHz, 0.6 W	2.32
341	T	NPN, Si, RF PO, 136–174 MHz, 4 W	3.80
342	T	NPN, Si, RF PO, 136–174 MHz, 7 W	5.90
343	T	NPN, Si, RF PO, 136–174 MHz, 14 W	13.55
344	T	NPN, Si, RF PO, 136–174 MHz, 30 W	21.35
345	T	NPN, Si, RF PO, 136–174 MHz, 30 W	19.40
346	T	NPN, Si, RF driver, 136–174 MHz, 1 W	2.70
347	T	NPN, Si, RF PO, 136–174 MHz, 3 W	8.85
348	T	NPN, Si, RF PO, 136–174 MHz, 4 W	13.60
349	T	NPN, Si, RF PO, 136–174 MHz, 10 W	14.95
350	T	NPN, Si, RF PO, 136–174 MHz, 15 W	15.55

***D**, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon.

ECG listing continued on following page.

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
350F	T	NPN, Si, RF PO, 136–174 MHz, 15 W	$15.90
351	T	NPN, Si, RF PO, 136–174 MHz, 25 W	19.50
352	T	NPN, Si, RF PO, 136–174 MHz, 80 W	43.50
353	T	PNP, Si, RF PO, 136–174 MHz, 4 W	13.80
354	T	PNP, Si, RF PO, 136–174 MHz, 15 W	19.85
355	T	PNP, Si, RF PO, 136–174 MHz, 30 W	25.85
356	T	PNP, Si, RF PO, 136–174 MHz, 40 W	29.75
357	T	NPN, Si, RF PO, 30–200 MHz, 7 W	15.20
358	......	Crystal, color oscillator	2.45
358A	......	Crystal, color burst filter	3.60
358B	......	Crystal, color oscillator	4.30
358C	......	Crystal, color oscillator	4.55
359	T	NPN, Si, RF PO, 30–200 MHz, 20 W	15.05
360	T	NPN, Si, RF PO, 30–200 MHz, 40 W	21.40
361	T	NPN, Si, RF PO, 407–512 MHz, 2 W	4.65
362	T	NPN, Si, RF PO, 407–512 MHz, 2 W	14.80
363	T	NPN, Si, RF PO, 407–512 MHz, 4 W	20.90
364	T	NPN, Si, RF PO, 407–512 MHz, 10 W	24.85
365	T	NPN, Si, RF PO, 407–512 MHz, 15 W	31.85
366	T	NPN, Si, RF PO, 407–512 MHz, 25 W	28.45
367	T	NPN, Si, RF PO, 407–512 MHz, 45 W	32.20
368	T	NPN, Si, RF PO, 407–512 MHz, 60 W	41.20
369	T	NPN, Si, TV vert defl	4.65
370A	IC	Squelch, AGC, AF oscillator	10.98
373	T	NPN, Si, AF driver	1.80
374	T	PNP, Si, AF driver	2.00
375	T	NPN, Si, TV vert defl	2.69
376	T	NPN, Si, PO	3.25
377	T	NPN, Si, AF PO, SW	2.85
378	T	PNP, Si, AF PO, SW	3.00
379	T	NPN, Si, high speed SW	7.15
380	T	NPN, Si, AF PO	3.40
380MP	T	Matched pair of ECG 380	7.39
381	T	PNP, Si, AF PO	4.15
382	T	NPN, Si, AF driver	2.05
383	T	PNP, Si, AF driver	2.12
384	T	NPN, Si, SW	6.20
385	T	NPN, Si, hi-speed SW	8.65
386	T	NPN, Si, hi-speed SW	18.10
387	T	NPN, Si, AF PO	37.60
387MP	T	Matched pair of ECG387	75.18
388	T	NPN, Si, AF PO	7.00
389	T	NPN, Si, TV horiz output	6.50
390	T	NPN, Si, AF PO, SW	4.05
391	T	PNP, Si, AF PO, SW	4.25
392	T	NPN, Si, AF PO, SW	5.75
393	T	PNP, Si, AF PO, SW	6.05
394	T	NPN, Si, AF PO, SW	6.55
395	T	PNP, Si, VHF/UHF amp, osc.	3.45
396	T	NPN, Si, hi-speed SW	3.05
397	T	PNP, Si, hi-speed SW	3.15
398	T	PNP, Si vert. output	3.20
399	T	NPN, Si horiz. driver	2.53
400	......	TO-5 heat sink, 1.9 W (2/pkg.)	.92
401	......	TO-5 heat sink, 3.0 W (2/pkg.)	1.37
402	......	Heat sink for plastic pwr transistor (2/pkg.)	.65
403	......	Heat sink for plastic pwr transistor (2/pkg.)	.60
404	......	TO-66 heat sink	1.84
405	......	TO-3 heat sink	1.72
406	......	TO-202 heat sink (2/pkg.)	.39
407	......	IC socket, 8-pin (2/pkg.)	.75
408	......	IC socket, 10-pin (2/pkg.)	2.55
409	......	IC skt., 14-pin dual inline (2/pkg.)	.99
410	......	TO-1 heat sink (2/pkg.)	.22
411	......	TO-5 heat sink stud (2/pkg.)	1.22
412	......	TO-18 heat sink (2/pkg.)	.99
413	......	TO-3 transistor insulator kit	.32
414	......	TO-36 transistor insulator kit	.32
415	......	TO-66 transistor insulator kit	.32
416	......	IC skt., 16-pin dual inline (2/pkg.)	1.00
417	......	TO-18 3-pin transistor skt. (2/pkg.)	.29
418	......	TO-18 4-pin transistor skt. (2/pkg.)	.47
419	......	TO-5 3-pin transistor skt. (2/pkg.)	.46
420	......	TO-5 4-pin transistor skt. (2/pkg.)	.29
421	......	TO-66 pwr. transistor skt. (2/pkg.)	.55
422	......	TO-220 transistor insulator kit	.32
423	......	IC 8-pin mini-DIP socket (2/pkg.)	.60
424	......	Heat sink compound, 1 oz. tube	3.30
426	......	Metric hardware kit, 3 mm nuts, bolts, etc.	.64
427	......	TO-5 and TO-39 heat sink and hardware	1.10
428	......	IC 24-pin DIP socket (2/pkg)	1.38
429	......	IC 28-pin DIP socket (2/pkg)	.64
430	......	IC socket, 40 pin	1.53
431	......	Transistor socket, MD17 and TC9 (2/pkg.)	.55
432	......	Thread converter, ⅜″-24 to ½″-20	1.46
433	......	High voltage splice for CRT anode lead	1.05
434	......	Non-corrosive adhesive sealant	4.50
435P6	......	6-pin DIP socket (2/pkg.)	.39
435P18	......	18-pin DIP socket (2/pkg.)	.54
435P20	......	20-pin DIP socket (2/pkg.)	.67

ECG No.	*	Description	Net Ea.
435P22	......	22-pin DIP socket (2/pkg.)	$0.73
435Q14	......	14-pin staggered DIP socket (2/pkg)	2.78
435Q16	......	16-pin staggered DIP socket (2/pkg)	2.92
436W8	......	8-pin wire wrap DIP socket (2/pkg)	1.79
436W14	......	14-pin wire wrap DIP socket (2/pkg)	2.39
436W16	......	16-pin wire wrap DIP socket (2/pkg)	2.65
436W18	......	18-pin wire wrap DIP socket (2/pkg)	2.55
436W20	......	20-pin wire wrap DIP socket (1/pkg)	1.39
436W22	......	22-pin wire wrap DIP socket (1/pkg)	1.50
436W24	......	24-pin wire wrap DIP socket (1/pkg)	1.65
436W28	......	28-pin wire wrap DIP socket (1/pkg)	1.96
436W40	......	40-pin wire wrap DIP socket (1/pkg)	2.65
437X18	......	Crystal socket, .017″ leads	5.35
437X33	......	Crystal socket, .030″ leads	5.50
438	......	DO-4 and TO-64 insulator kit	.64
439	......	DO-5 and TO-48 insulator kit	.68
440A	......	Heat sink, undrilled	5.45
440B	......	TO-3, TO-48, TO-66, TO-126, TO-127, TO-220, and DO-5 heat sink	5.55
440C	......	TO-3, TO-15, TO-6, TO-36, TO-64, and DO-4 heat sink	5.55
441A	......	Solid state relay heat sink	13.85
441B	......	Heat sink, undrilled	13.30
451	FET	N-channel, VHF amp	1.57
452	FET	N-channel, VHF amp	1.73
453	FET	N-channel, VHF/FM amp	1.53
454	FET	MOSFET, dual gate, N-channel	2.55
455	FET	MOSFET, N-channel, dual gate TV UHF RF amp	2.72
456	FET	N-channel, amp, SW	1.73
457	FET	N-channel, amp, SW	1.37
458	FET	JFET, N-channel, GP AF amp	1.81
459	FET	N-channel, amp, SW	1.75
460	FET	P-channel, AF amp	1.48
461	FET	Matched dual JFET's	7.95
462	FET	MOSFET, N-channel, AF amp	2.57
463	FET	MOSFET, P-channel, enhancement	4.80
464	FET	MOSFET, P-channel, enhancement	2.21
465	FET	MOSFET, N-channel, enhancement	2.23
466	FET	JFET, N-channel	1.78
467	FET	JFET, N-channel	1.31
470	T	NPN, Si RF PO, 30 MHz, 100 W	45.85
471	T	NPN, Si RF PO, 30 MHz, 100 W	43.19
472	T	NPN, Si RF PO, 175 MHz, 1.8 W	5.34
473	T	NPN, Si RF PO, 175 MHz, 2.2 W	5.59
474	T	NPN, Si RF PO, 88 MHz, 6 W	5.45
475	T	NPN, Si RF PO, 175 MHz, 7 W	19.83
476	T	NPN, Si RF PO, 175 MHz, 12 W	21.57
477	T	NPN, Si RF PO, 175 MHz, 45 W	32.34
478	T	NPN, Si RF PO, 175 MHz, 100 W	47.32
479	T	NPN, Si UHF PO, 470 MHz, 1.8 W	5.80
480	T	NPN, Si UHF PO, 470 MHz, 40 W	40.45
481	T	NPN, Si UHF PO, 836 MHz, 6 W	27.47
482	T	NPN, Si UHF PO, 836 MHz, 15 W	37.06
483	T	NPN, Si UHF PO, 836 MHz, 18 W	42.35
484	T	NPN, Si UHF PO, 836 MHz, 25 W	53.06
485	T	NPN, Si UHF PO, 836 MHz, 25 W	45.64
486	T	NPN, Si UHF multiplier, 407–512 MHz, 0.75 W	5.34
487	T	NPN, Si RF PO, 175 MHz, 1 W	7.51
488	T	NPN, Si RF PO, 175 MHz, 4 W	9.88
500ARP	R	Si, tripler, TV high voltage, replaces ECG500, with 27 in. anode lead	20.00
501BRP	R	Se, tripler, TV high-voltage, 33 kV (inc. focus cap)	25.10
502RP	R	Se, TV high-voltage, 12,400 V PRV	3.30
503RP	R	Se, TV high-voltage, 14,400 V PRV	3.80
504RP	R	Se, TV high-voltage, 19,500 V PRV	4.45
505RP	R	Se, TV high-voltage, 21,400 V PRV	4.55
506	R	Si, hi-current/fast switching, damper, bst, blank	1.36
507	R	Si, hi-current/fast switching center., gate	.92
508/R3A3	R	Si, replaces TV hi-voltage rect. tube	7.55
509/R-3AT2	R	Si, replaces TV hi-voltage rect. tube	7.75
510/R-3DB3	R	Si, replaces TV hi-voltage rect. tube	7.55
511/R-2AV2	R	Si, replaces TV hi-voltage rect. tube	4.00
512/R-DW4	R	Si, replaces TV damper tube	6.10
513	R	Si, stick, TV hi-voltage, 45 kV PIV	7.35
514/R-3DS3	R	Si, replaces TV h -voltage rect. tube	7.55
515	D	SCR deflection circuits	2.43
518	R	Si, fast switching, 8000 PRV	2.95
519	D	Si, fast switching, 4 nano sec, 100 PRV	.99
521RP	R	Tripler, TV high voltage	24.00
522RP	R	Tripler, TV high voltage	20.00
523RP	R	Tripler, TV high voltage, Int. focus divider net.	22.80
524V13	......	Varistor, metal oxide, 130 V	2.90
524V15	......	Varistor, metal oxide, 150 V	2.90
524V25	......	Varistor, metal oxide, 250 V	3.10

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
524V48	......	Varistor, metal oxide, 480 V rms	$ 6.05
525	D	Si, Damper, 2,000 PRV	2.52
526ARP	R	Tripler, high voltage with focus block	26.50
527	R	Si, stick, TV high voltage, 30 k PIV	10.15
528RP	R	Tripler, TV high voltage	29.10
529RP	R	Tripler, TV high voltage	26.00
530RP	R	Tripler, TV high voltage	22.40
531RP	R	Tripler, TV high voltage	25.90
532RP	R	Tripler, TV high voltage	22.90
533RP	R	Tripler, TV high voltage	22.65
534RP	R	Tripler, TV high voltage	19.10
535RP	R	Tripler, TV high voltage	23.60
536ARP	R	Quadrupler, TV high voltage	34.70
537RP	R	Tripler, TV high voltage	22.95
538RP	R	Tripler, TV high voltage	21.00
539RP	R	Tripler, TV high voltage	19.90
540	R	Microwave oven diode	9.80
541	R	Microwave oven diode	10.60
542	R	Microwave oven diode	10.15
543	R	Microwave oven diode	10.15
544	R	Microwave oven diode	11.25
545	R	Microwave oven diode	9.80
546	R	Microwave oven diode	9.55
547	R	Microwave oven diode	10.70
548	R	Microwave oven diode	11.15
549RP	R	Tripler, TV high voltage	26.60
550RP	R	Quadrupler, TV high voltage with damper diode	26.60
551	D	Si, Damper, fast recovery	2.40
552	D	Si, 600 PRV, 1 A, trr 200 ns	1.26
553	D	PIN diode, UHF sw	.88
554RP	R	Tripler, TV high voltage with damper diode	26.60
555	D	PIN diode, VHF sw	1.15
556RP	R	Tripler, TV high voltage	31.12
557RP	R	Tripler, TV high voltage	29.47
558	R	Fast recovery, 1500 PRV, 1 A, 250 nsec.	2.17
559RP	R	Tripler, TV high voltage	30.15
560RP	R	Tripler, TV high voltage	27.40
561RP	R	Tripler, TV high voltage	29.35
562RP	R	Tripler, TV high voltage	35.30
563RP	R	Tripler, TV high voltage	37.95
564RP	R	Tripler, TV high voltage	38.85
565RP	R	Tripler, TV high voltage	54.35
600	......	Varistor, Si, 10 mA forward current	.78
601	......	Varistor, Si, 20 mA forward current	.36
605	......	Varistor, Si, 30 mA forward current	.76
606	......	Voltage reference varistor	2.68
607	......	Voltage reference varistor	2.77
610	D	Varactor, 6.8 pF at 4 V	1.03
611	D	Varactor, 10 pF at 4 V	1.03
612	D	Varactor, 12 pF at 4 V	1.03
613	D	Varactor, 22 pF at 4 V	1.03
614	D	Varactor, 33 pF at 4 V	1.26
615	IC	Voltage regulator, 33 V	1.26
616	D	Matched tuning diodes (4/pkg.)	7.76/pkg.
617	D	FM radio tuning diode	1.85
618	D	AM radio tuning diode	2.50
650	......	Crystal, 1.0 MHz	10.85
651	......	Crystal, 2.0 MHz	5.15
652	......	Crystal, 4.0 MHz	4.15
653	......	Crystal, 5.0 MHz	4.50
654	......	Crystal, 10.245 MHz	5.35
655	......	Crystal, 4.0 MHz	4.50
656	......	Crystal, 4.9152 MHz	4.10
657	......	Crystal, 6.144 MHz	4.50
658	......	Crystal, 10.0 MHz	4.05
659	......	Crystal, 18.0 MHz	4.65
660	......	Crystal, 18.432 MHz	4.80
661	......	Crystal, 20.0 MHz	5.05
662	......	Crystal, 22.1184 MHz	5.50
700	IC	TV chroma subcarrier regeneration	3.75
701	IC	Video signal processor	7.70
702	IC	Chroma processor	6.20
704	IC	TV sound, IF amp detector	4.85
705A	IC	Chroma demodulator	7.15
706	IC	TV/FM IF amp, lim. det., driver	4.75
707	IC	Chroma demodulator	7.50
708	IC	TV/FM sound IF amp, det., limiter	4.50
709	IC	TV/FM sound IF amp, det., limiter	4.70
710	IC	TV/FM IF amp, lim., det., AF driver	4.65
711	IC	Color TV automatic fine tuning	5.65
712	IC	FM/TV sound IF, det., vol. cont.	4.15
713	IC	Chroma demodulator	5.90
714	IC	Color subcarrier regenerator	4.90
715	IC	Chroma IF amplifier	4.70
716	IC	AF amplifier	8.30
717	IC	AF PO	4.75
718	IC	FM stereo demodulator	5.85
719	IC	FM stereo demodulator	5.90
720	IC	FM stereo demodulator	6.20
721	IC	Dual low-noise AF preamp	5.85
722	IC	FM stereo demodulator	4.70
723	IC	FM receiver sound system	5.90
724	IC	Differential cascade amp	$ 4.60
725	IC	Dual low-noise operational amp	6.20
726	IC	Wide-band amplifier	4.60
727	IC	Four AC amp array	7.80
728	IC	Chroma signal processor	6.80
729	IC	Chroma demodulator	6.35
730	IC	TV video IF system	9.30
731	IC	TV video signal processor	6.85
735	IC	Class "A" AF driver	3.25
736	IC	FM gain block	6.90
737	IC	FM limiter detector	6.60
738	IC	Chroma IF amplifier	7.80
739	IC	Chroma demodulator, driver	7.80
740A	IC	AF PO, 2 watts with thermal shutdown	5.80
742	IC	TV sound, 2 watts PO	8.05
743	IC	FM-stereo decoder	10.15
744	IC	AM radio RF/IF amplifier	9.45
745	IC	AF PO, rated 0.5 watt	2.77
746	IC	FM/TV sound IF amplifier	3.10
747	IC	TV video detector	3.40
748	IC	TV snd. IF amp, lim., det., AF preamp	3.65
749	IC	TV video IF amp	6.90
750	IC	FM 4-stage hi-gain IF amp, limiter	4.80
753	IC	Wide-band amplifier	2.05
755	IC	Class "A" AF driver	3.55
757	IC	Voltage regulator, 9–35 V, 200 mA	3.80
758	IC	Voltage regulator, 9–20 V, 200 mA	3.80
759	IC	Voltage regulator, 9–20 V, 200 mA	3.80
760	IC	FM IF amplifier	2.94
761	IC	Dual toggle flip-flop	3.40
763	IC	Voltage regulator, 9–35 V, 200 mA	3.80
765	IC	Voltage regulator, 9–20 V, 200 mA	3.80
767	IC	Dual toggle flip-flop	3.67
768	IC	3-input AND gate	3.55
770	IC	R-S flip-flop	3.60
772A	IC	Class "B" AF driver	3.70
773	IC	Differential cascade amplifier	3.32
775	IC	J-K flip-flop	4.05
776	IC	Zero voltage switch	5.80
778A	IC	Dual op amp, 8-pin mini-DIP	2.85
779A	IC	TV signal processor	6.65
780	IC	TV AFC	5.85
781	IC	FM high-gain IF amp, limiter	7.60
783	IC	TV AFC	5.40
784	IC	Wide-band power amp	6.15
785	IC	Ultra hi-gain, wide-band 3-amp array	4.80
786	IC	FM IF amp, lim., det., AF preamp, dr.	4.70
787	IC	AM receiver subsystem	4.30
788	IC	FM IF system	6.60
789	IC	FM stereo decoder	11.35
790	IC	Dual chroma demodulator	5.10
791	IC	Chroma amp, demodulator	4.70
792	IC	Horiz processor	3.35
793	IC	Vertical count-down chain	5.75
794	IC	Vertical driver	4.25
795	IC	AGC control IF amp	4.10
797	IC	Chroma processor	5.95
798	IC	Chroma demod	8.10
799	IC	4-ch. "SQ" stereo decoder	8.25
800	IC	FM/AM/SSB IF amp/det	7.80
801	IC	FM stereo demod., phased locked loop	8.10
802	IC	4-ch. electronic attenuator	14.45
803	IC	4-ch. "SQ" logic F/B enchantment	18.10
804	IC	Dual 2 watt audio amp	7.40
805	IC	FM IF gain block	3.70
806	IC	FM IF gain block	5.90
807	IC	TV/FM sound system, 1 W PO	6.00
808	IC	TV video processor	6.25
809	IC	TV chroma control	5.65
810A	IC	AF PO, 2 W	5.55
812	IC	AF PO	4.90
813	IC	CD4 disc demod. system with preamp	26.90
814A	IC	AF PO with preamp, 4 W	5.75
815	IC	TV horiz. processor	2.90
816	IC	RF/IF amp	3.30
817	IC	RF/IF amp	2.75
818	IC	TV luminance processor	4.70
819	IC	Chroma amp and demod	8.20
820	IC	TV horiz osc and AFC	7.30
821	IC	Chroma demod	4.00
822	IC	Auto video/chroma proc.	9.05
823	IC	AF PO	1.78
824	IC	Dual AF preamp	2.04
825	IC	AF PO, 1W	3.80
826	IC	FM IF, AF PO, 2 W	3.50
828	IC	AF PO, 1.5 W	3.05
829	IC	Electronic attenuator	3.35
830	IC	TV horiz proc./vert countdown	4.90
831	IC	Chroma demodulator	10.70
832	IC	Tone decoder	3.60
833	IC	Timing circuit	2.14
834	IC	Quad comparator	2.22
835	IC	Chroma processor	4.50
836	IC	Horiz. processor	2.59
837	IC	CB voltage controlled oscillator	4.20
838	IC	Wide-band amplifier	2.52

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
839	IC	AF Class B preamp	$ 3.60
840	IC	TV 30-channel decoder	25.30
841	IC	Video IF, AFT	4.65
842	IC	Video IF, AGC	7.85
843	IC	Video IF, AFT	8.10
844	IC	TV chroma/luminance circuit	14.45
845	IC	Chroma processor	13.15
846	IC	TV video modulator	4.95
847	IC	Low level audio amp	5.85
848	IC	Vertical countdown circuit	9.35
849	IC	TV horiz/vert countdown/digital sync	8.85
850	IC	CMOS, op amp/bandswitch	5.75
851	IC	TV UHF/VHF prescaler	9.70
852	IC	Vert/horiz circuit, no hold control	9.45
853	IC	Narrow band FM IF, squelch, scan control, osc, mixer	4.65
854	IC	Composite TV IF system	15.76
855	IC	Color TV video modulator	6.35
856	IC	TV video modulator	4.80
857M	IC	Lo noise JFET input op amp	3.05
858M	IC	Dual lo noise JFET input op amp	2.67
859	IC	Quad lo noise JFET input op amp	3.30
860	IC	Narrow band FM IF amp/scan control/squelch osc	4.85
900	IC	Balanced diff. amp and DC amp	7.15
901	IC	Video, wide band amp	10.15
902	IC	Operational transconductance amp	2.39
903	IC	Op amp	5.35
904	IC	2 transistors and Darlington pair	3.55
905	IC	Diode quad plus 2 isolated diodes	3.45
906	IC	Dual HF diff. amps for freq. up to 500 MHz	5.75
907	IC	6 ultra fast matched diodes	3.30
908	IC	Op amp	9.95
909	IC	Hi-performance op amp, 8-lead can	1.54
909D	IC	Same as ECG909, 14-lead DIP	1.24
910	IC	Hi-speed diff. comparator, 8-lead can	1.12
910D	IC	Same as ECG910, 14-lead DIP	1.15
911	IC	Dual hi-speed diff. comp., 10-lead can	1.13
911D	IC	Same as ECG911, 14-lead DIP	1.16
912	IC	3 isolated transistors, 1 diff. pair	4.80
913	IC	Op amp for hi-current app.	8.50
914	IC	Zero voltage switch	9.85
915	IC	Hi-speed op amp, 10-lead can	7.75
916	IC	Transistor array, digital seg. disp.	4.50
917	IC	Dual diff. amp, low power app. from DC to 120 MHz	4.30
918	IC	High speed precision op-amp, 8-lead can	4.10
918M	IC	High speed precision op-amp, 8-lead DIP	4.10
919	IC	Dual high speed comparator, 10-lead can	4.63
919D	IC	Dual high speed comparator, 10-lead DIP	4.54
920	IC	Dual toggle flip-flop with reset	4.30
921	IC	Dual polarity tracking voltage regulator, ±15 V	5.65
922	IC	Voltage comparator, 8-lead can	2.89
922M	IC	Voltage comparator, 8-lead DIP	1.35
923	IC	Precision VR, 10-lead can	1.41
923D	IC	Same as ECG923, 14-lead DIP	1.41
924	IC	Voltage follower op-amp	3.40
924M	IC	Voltage follower op-amp, 8-lead DIP	3.37
925	IC	Instrumentation op amp, 8-lead can	11.60
926	IC	Quad timer	2.93
927	IC	Differential video amp	2.45
927D	IC	Differential video amp	2.14
928	IC	Dual low power op-amp, 8-lead can	2.93
928M	IC	Dual low power op-amp, 8-lead DIP	2.93
930	IC	MOS op-amp 8-lead can	5.04
931	IC	Pos. volt regulator, 5 V, 3 A, 3-term	11.80
932	IC	Pos. volt regulator, 5 V, 5 A, 3-term	14.40
933	IC	Pos. volt regulator, 12 V, 5 A, 3-term	14.55
934	IC	Pos. volt regulator, 13.8 V, 5 A, 3-term	14.55
935	IC	Pos. adj. volt regulator, 1.2–32 V, 5 A	13.55
936	IC	Phase control for SCR or triac	9.50
937	IC	JFET input op-amp, 8-lead can	2.64
937M	IC	JFET input op-amp, 8-lead DIP	2.52
938	IC	Precision op-amp, 8-lead can	1.97
938M	IC	Precision op-amp, 8-lead DIP	1.73
939	IC	Burst control for SCR or triac	9.50
940	IC	FET-input op amp, 8-lead can	15.35
941	IC	Freq. compensated op amp, 8-lead can	1.34
941D	IC	Same as ECG941, 14-lead DIP	1.07
941M	IC	Same as ECG941, 8-lead mini-DIP	.86
942	IC	Lo noise dual preamp	9.80
943	IC	Dual comparator, 8-pin metal can	5.00
943M	IC	Dual comparator, 8-pin DIP	3.50
944	IC	Prog op amp, 8-pin metal can	4.45
944M	IC	Prog op amp, 8-pin DIP	2.74
946	IC	Positive pwr supply, volt. reg.	7.25
947	IC	Dual freq. comp. op amp, 10-lead can	6.25
947D	IC	Dual freq. comp. op amp., 14 lead DIP	6.25
948	IC	Quad op-amp	2.99
949	IC	Dual op amp, 8-lead can	2.80
950	IC	Voltage regulator, 12 V, 100 mA	$ 2.07
951	IC	Voltage regulator, 15 V, 100 mA	2.26
952	IC	Precision 2.5 V voltage reference	2.61
953	IC	Pos VR adj, 5 to 30 V, 1 A	2.72
954	IC	Neg VR adj, −2.2 to −30 V, 1 A	2.72
955M	IC	Timer/oscillator	1.68
956	IC	Voltage regulator, 1.2–37 V, 1.5 A	2.82
957	IC	Voltage regulator, 1.2–37 V, 1.5 A	3.26
958	IC	Voltage regulator, 18 V, 1 A	3.87
959	IC	Voltage regulator, 18 V, 1 A	4.09
960	IC	Pos. volt regulator, 5 V, 1 A	3.50
961	IC	Neg. volt regulator, 5 V, 1 A	4.80
962	IC	Pos. volt. regulator, 6 V, 1 A	3.40
963	IC	Neg. volt regulator, 6 V, 1 A	4.75
964	IC	Pos. volt regulator, 8 V, 1 A	3.35
965	IC	Neg. volt regulator, 8 V, 1 A	3.24
966	IC	Pos. volt regulator, 12 V, 1 A	3.60
967	IC	Neg. volt regulator, 12 V, 1 A	5.15
968	IC	Pos. volt regulator, 15 V, 1A	3.40
969	IC	Neg. volt regulator, 15 V, 1 A	4.75
970	IC	Voltage regulator, 1.2–33 V, 3 A	9.93
971	IC	Voltage regulator, 24 V, 1 A	4.75
972	IC	Pos. volt regulator, 24 V, 1A	3.50
973	IC	Balanced modulator/demodulator	3.20
973D	IC	Balanced modulator/demodulator, 14-pin DIP	3.20
974	IC	Phase/frequency detector	4.30
975	IC	Op amp	2.24
976	IC	Op amp	2.40
977	IC	Volt regulator, 5 V, 100 mA	1.65
978	IC	Dual timing circuit	2.40
980	IC	Phase locked loop	2.35
981	IC	Volt regulator, 8 V, 100 mA	1.88
982	IC	Subcarrier regenerator ACC, APC detector	3.07
983	IC	Dual AF preamp	3.15
984	IC	Video IF, AFT	8.15
985	IC	Luminance processor	5.70
986	IC	Chroma proc and demod	9.90
987	IC	Quad Op-amp	2.30
988	IC	Voltage reg, 6.2 V, 100 mA	1.71
989	IC	PLL	2.47
990	IC	Dual AF PO, 2 W	3.70
991	IC	Freq, synthesizer, CB	12.15
992	IC	4 independent amps	2.44
993	IC	CB pre-scaler	8.45
994	IC	Voltage controlled oscillator, 8-lead can	3.65
994M	IC	Voltage controlled oscillator, 8-lead DIP	2.77
995	IC	Frequency-to-voltage converter	3.57
996	IC	Operational transconductance amp	1.43
997	IC	Quad op-amp	3.20
1000	......	Mod-hybrid, low-noise 12 V AF preamp	6.15
1001	......	Mod-hybrid, low-noise 6 V AF preamp	6.15
1002	IC	FM/TV IF amp	8.50
1003	IC	FM/AM IF amp	7.70
1004	IC	AFT system for TV	8.50
1005	IC	FM stereo demod.	8.75
1006	IC	FM stereo demod.	8.75
1008	IC	AF amp, 1 watt	8.75
1009	IC	AF amp, 1 watt	6.50
1010	IC	AF amp, 2 watt	6.50
1011	IC	AF amp, 2.5 watt	8.15
1012	......	Mod-hybrid, CB osc/AM IF	3.00
1013	......	Mod-hybrid, AM IF amp/AF preamp	5.25
1014	......	Mod-hybrid, RF amp/osc, FM wireless mic	3.85
1015	......	Mod-hybrid, low-noise AF preamp	3.85
1016	......	Mod-hybrid, AF preamp	6.50
1017	......	Mod-hybrid, AF amp for wireless mic	6.65
1018	......	Mod-hybrid, horiz osc/AFC	7.75
1019	......	Mod-hybrid, low-noise audio equalizing amp	6.05
1021	......	Mod-hybrid, low-noise audio equalizing amp	4.55
1022	IC	4-ch. stereo matrix decoder	7.00
1023	IC	Audio amp, 4 watts	12.20
1024	......	Mod-hybrid, audio amp, 8 watts	18.85
1025	......	Mod-hybrid, audio amp, 13 watts	21.05
1026	......	Mod-hybrid, master osc/buffer for organs	7.05
1027	......	Mod-hybrid, audio amp, 13 watts	20.50
1028	......	Mod-hybrid, audio amp, 25 watts	19.35
1029	IC	Audio amp, 3.5 watts	9.85
1030	IC	Audio amp, 5 watts	8.75
1031	IC	Audio amp, 0.5 watts	8.20
1032	IC	Audio amp, 1 watt	7.95
1033	IC	Audio amp, 1 watt	8.10
1034	IC	Audio amp, 2 watts	8.10
1035	IC	Audio amp, 1 watt	7.85
1036	IC	Audio amp, 0.7 watt	7.85
1037	IC	Audio amp, 5.5 watts	9.80
1038	IC	Audio amp, 3.5 watts	9.80
1039	IC	FM IF amp	3.90
1040	......	Mod., FM IF amp	4.10
1041	IC	IF amp	6.05
1042	IC	3-stage FM IF amp	6.05
1043	IC	Audio preamp and 1 watt audio output	7.70

*D, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
1045	IC	FM/TV sound IF det./amp	$ 4.75
1046	IC	TV AFT	7.00
1047	IC	TV sound IF/FM, det/AF preamp	5.40
1048	IC	Chroma demod.	6.35
1049	IC	AM radio tuner with RF amp	6.35
1050	IC	Chroma demod.	7.00
1051	IC	TV sound IF/FM det/AGC preamp	6.50
1052	......	Mod.-low-noise audio preamp and equalizer	4.30
1053	IC	Low-noise/hi-gain audio preamp	5.80
1054	IC	AM/FM IF amp	7.35
1055	IC	AM/FM IF amp, AM conv.	6.05
1056	IC	FM stereo demod.	6.35
1057	IC	FM IF amp/det/AF preamp	8.65
1058	IC	Audio preamp and 4.4 watts pwr. amp	8.25
1059	IC	AF power driver	9.00
1060	IC	AM RF amp/mixer/osc and AM/FM IF amp	6.35
1061	IC	TF AFT	7.30
1062	IC	Chroma demod.	9.95
1063	IC	Chroma demod.	6.90
1064	IC	TV video signal processor	11.80
1065	IC	TV video signal processor	9.00
1066	IC	TV video signal processor	9.00
1067	IC	Chroma signal processor	10.45
1068	IC	Chroma demod.	10.45
1069	IC	Chroma processor	9.35
1070	IC	Video signal processor	7.60
1071	IC	Chroma demod.	10.45
1072	IC	FM/AM IF amp and AF preamp	6.95
1073	IC	AM RF amp/mixer/osc. and FM/AM IF amp	6.45
1074	IC	FM/AM IF amp, AM mixer/osc, tuning meter dr.	6.55
1075A	IC	Audio amp, 1 watt	10.65
1076	IC	TV video IF, output det., AFT, take-off ckt.	7.35
1077	IC	Vert. osc, AFC, vert. dr.	7.35
1078	IC	Audio amp, 6.5 watts	9.55
1079	IC	Vert. osc/driver	7.35
1080	IC	TV video processor	8.80
1081A	IC	Audio amp, 4.5 watts	11.55
1082	......	Mod., AF equalizer and preamp	4.45
1083	......	Mod-hybrid, dual hi-gain audio preamp	9.75
1084	IC	Video output, ARC, brightness lim., DC contrast cont.	9.05
1085	IC	Low-noise audio preamp	4.45
1086	IC	TV sync sep./horiz osc./AFC	7.35
1087	......	Mod., low-noise/hi gain audio preamp	4.45
1088	IC	Audio amp, 1.5 watts	6.80
1089	IC	Chroma signal processor	11.65
1090	......	Mod-hybrid, audio amp, 25 watts	24.25
1091	IC	1st video amp/inv., AGC gate/amp, color take-off	7.35
1092	......	Mod., RF/IF amp to 150 MHz	4.50
1093	IC	Audio preamp, power output, 1 watt	7.35
1094	IC	Chroma amp	11.80
1095	IC	Audio preamp, driver, power output, 1 watt	9.60
1096	IC	TV AFT	5.80
1097	IC	Audio amp, 1 watt, plus 2 transistors	10.45
1098	IC	Audio amp, 5 watts	15.10
1099	IC	Chroma demod.	7.35
1100	......	Mod., FM IF amp	4.45
1101	......	Mod., gen. purp. amp, DC to 100 MHz	4.45
1102	......	Mod., 3-stage audio amp/driver	4.45
1103	......	Mod., audio preamp/voltage amp	4.65
1104	......	Mod., hi-freq. amp to 100 MHz	3.70
1105	IC	Subcarrier regen./APC/killer/burst amp/det.	9.45
1106	IC	FM stereo demod.	5.90
1107	IC	Audio amp, 4 watts	12.60
1108	IC	AM/FM IF amp, det., AF amp	6.80
1109	IC	Low level video det.	8.40
1110	IC	Audio preamp, tone amp, pwr output, 2 watts	15.10
1111	IC	Audio amp, 4 watts	9.40
1112	IC	Audio amp, 2.2 watts	8.20
1113	IC	Audio amp, 1 watt	8.25
1115	IC	Audio amp, 7 watts	8.30
1115A	IC	Audio amp, 7 watts	8.30
1116	IC	Audio amp, 5 watts	5.45
1117	IC	Audio amp, 2 watts	5.45
1118	IC	Audio amp, 3.3 watts	7.35
1119	......	Mod-hybrid, 2-stage audio amp/dr.	6.55
1120	......	Mod.-hybrid, audio driver	6.55
1121	IC	Chroma sync system	11.75
1122	IC	Chroma demod.	11.75
1123	IC	TV chroma subcarrier regeneration	9.45
1124	IC	AM/FM IF amp	7.40
1125	IC	Replacement for AN216	14.60
1126	IC	Audio amp, 1 watt	8.90
1127	IC	Audio amp, 4.5 watts	8.80
1128	IC	TV video IF	3.55
1130	IC	Chroma demod./matrix hue control	8.45
1131	IC	Chroma/sig. amp/Processor	7.60
1132	IC	Chroma subcarrier regen.	8.45

ECG No.	*	Description	Net Ea.
1133	IC	TV sound IF/det.	$ 7.15
1134	IC	TV video processor	7.15
1135	IC	Hi-gain audio preamp	4.35
1136	IC	Battery protect ckt.	8.80
1137	IC	Audio amp, 1.3 watts	7.15
1139	......	Mod., audio power amp	19.10
1140	IC	Audio amp, 2 watts	8.90
1141	IC	AF power output, 1.5 watts	9.80
1142	IC	FM multiplex stereo demod.	7.15
1148	......	Mod., AF power output, 50 watts	24.10
1149	IC	FM tuning system and indicator	6.50
1150	IC	AF power output, 2.5 watts	7.95
1152	......	Mod., AF preamp, high gain	6.15
1153	IC	AF pwr amp, 4.2 W	11.10
1154	IC	Dual power amp, 2 watts per channel	8.10
1155	IC	AF pwr amp, 5.8 W	10.45
1156	IC	Audio power amp, 2 watts	11.45
1158	IC	Chroma processor ckt.	9.85
1159	IC	Color demod. ckt.	9.50
1160	IC	Audio power amp, 5.2 watts	8.40
1161	IC	Video and sound IF	12.05
1162	IC	IF, det. and audio preamp	4.45
1163	IC	TV color demodulator	8.20
1164	IC	TV video sig. proc. circuit	8.75
1165	IC	Modulator/audio output, stereo and CB	8.35
1166	IC	Modulator/audio output, stereo and CB	9.85
1167	IC	CMOS PLL (frequency synthesizer)	20.65
1168	IC	Video processor	8.55
1169	IC	Audio output/modulator	8.30
1170	IC	Audio preamp	7.00
1171	IC	Microphone amp	6.90
1172	IC	Phase frequency detector for PLL	11.80
1173	IC	TV video IF amp and AGC	8.25
1174	IC	TV automatic fine tuning	4.20
1175	IC	TV sound IF and AF output subsystem	6.45
1176	IC	TV chroma demodulator	5.95
1177	IC	TV luminance processor	4.85
1178	IC	Chroma demodulator	8.45
1179	IC	Audio preamp	3.45
1180	IC	Audio power amp, 1.5 W	6.20
1181	IC	MPX decoder	5.65
1182	IC	Chrominance signal processor	15.05
1183	IC	Chroma demodulator	11.55
1184	IC	Audio preamp	5.65
1185	IC	Audio preamp	6.05
1186	IC	Video IF and AGC	5.35
1187	IC	Video detector/amp	5.75
1188	IC	Noise amp	6.15
1189	IC	Color processor	21.00
1191	IC	Chrominance signal processor	15.65
1192	IC	Voltage controlled osc. and mixer, CB	8.10
1193	IC	Audio power amp, 4.5 W	8.05
1194	IC	Audio power amp, 5.8 W, CB	9.00
1195	IC	Low noise audio preamp	4.30
1196	IC	Chroma processor and demodulator	15.70
1197	IC	Freq divider and amp	6.80
1198	IC	CMOS Frequency divider	20.70
1199	IC	CMOS Frequency divider	20.95
1200	IC	TV chroma processor	14.50
1201	IC	CB voltage controlled osc.	17.15
1202	IC	CB voltage controlled osc.	17.15
1203	IC	CB voltage controlled osc.	17.15
1204	IC	Voltage controlled osc.	17.15
1205	IC	Tape recorder preamp	6.95
1206	IC	PLL stereo decoder	7.40
1207	IC	CMOS programmable divider	8.60
1208	IC	CMOS phase comparator	5.65
1209	IC	4-bit binary counter	6.95
1210	IC	Audio preamp	3.40
1211	IC	Audio pwr. amp, 5.5 W, auto and CB	7.30
1212	IC	2-ch. AF power amp, 9.5 W/channel	16.55
1213	IC	TV video IF amp	6.05
1214	IC	AM tuner, RF converter, IF, det. AGC	7.70
1215	IC	Stereo equalizer amp	4.20
1216	IC	Chroma demodulator	10.90
1217	IC	PLL FM stereo decoder	6.70
1218	IC	2-ch. AF power amp, 7 W/channel	17.35
1219	IC	2-ch. AF power amp, 15 W/channel	20.15
1221	IC	Stereo /preamp	7.40
1222	IC	AF power amp, 4.2 W	7.90
1223	IC	Low noise preamp	2.95
1224	IC	AF power amp, 1.55 W	5.85
1225	IC	FM stereo demodulator	11.05
1226	IC	FM stereo multiplex demodulator	4.60
1227	IC	FM IF amp	3.70
1228	IC	AF power amp, 2.1 W	4.90
1229	IC	TV vert. defl. and pincushion correction	10.00
1230	IC	FM stereo multiplex demodulator	11.15
1231	IC	TV sound IF and audio output	5.20
1231A	IC	TV sound IF, AF PO	5.20
1232	IC	AF power amp, 8 W	5.60
1233	IC	PLL	22.80
1234	IC	FM IF and TV sound IF amp	3.50
1235	IC	Squelch amp	4.90
1236	IC	FM IF and TV sound IF amp	5.90
1237	IC	AM radio without audio	3.80

*__D__, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
1239	IC	Audio output and CB mod	$ 8.20
1240	IC	Audio output, 5.5 W	8.25
1241	IC	Head coil and meter drive	3.45
1242	IC	AM conv and AM/FM IF	5.70
1243	IC	Stereo decoder	5.70
1244	IC	Audio output	4.80
1245	IC	Audio output	5.60
1246	IC	TV sound IF, det, AF PO	6.00
1247	IC	Voltage controlled osc	17.55
1248	IC	Stereo demod	7.55
1249	IC	Balanced modulator	6.35
1250	IC	TV AFT	7.00
1251	IC	Voltage reg w/filter, 13.1 V	5.50
1252	IC	Dual AF PO, 15 W/channel	17.20
1253	IC	PLL synthesizer, CB	20.60
1254	IC	PLL synthesizer, CB	15.35
1255	IC	PLL synthesizer, CB	14.00
1256	IC	AF PO, 5.8 W	4.35
1257	IC	FM IF, det, AF PO	7.70
1258	IC	TV vert hold, osc, output	8.40
1259	IC	AF PO, 6.5 W	5.65
1260	IC	AF PO, 5.5 W	5.25
1261	IC	AF PO, 5.5 W	4.95
1262	IC	Voltage controlled osc, CB	16.80
1263	IC	Record/playback circuit, VCR	6.75
1264	IC	Luminance ckt, VCR	7.60
1265	IC	Noise suppressor, VCR	10.20
1266	IC	Chroma processor, VCR	7.10
1267	IC	Dropout compensator, VCR	7.30
1268	IC	DC servo control, VCR	11.95
1269	IC	Color processor, VCR	12.50
1270	IC	Motor drive, VCR	9.65
1271	IC	VCR voltage control generator	4.80
1272	IC	PLL freq synthesizer	16.75
1273	IC	Dual AF PO	6.70
1274	IC	AF PO, 15 W	20.95
1275	IC	AF PO, 5.8 W	10.15
1276	......	Mod-hybrid, CB voltage controlled oscillator	5.45
1277	IC	Dual AF PO 3.5 W/channel	10.50
1278	IC	AF PO, 5.8 W	5.20
1279	......	Mod-hybrid, AF PO, 50 W	12.30
1280	......	Mod-hybrid, AF PO, 35 W	9.20
1281	......	Mod-hybrid, AF PO, 50 W	12.30
1282	......	Mod-hybrid, AF PO, 35 W	9.20
1283	IC	AF PO, 5.3 W	5.35
1284	IC	AF PO, 5.3 W	5.35
1285	IC	AF PO, 5.8 W	4.75
1286	IC	AF PO, 5.8 W	4.75
1287	IC	AF PO, 20 W	9.65
1288	IC	AF PO, 10 W	6.20
1289	IC	TV vertical deflection system	10.70
1290	IC	AM receiver subsystem	4.85
1291	IC	Dual 5.5 W power amp	6.25
1292	IC	IF amp/detector	2.23
1293	IC	Dual 7 W power amp	6.55
1300	IC	TV remote control	5.00
1301	IC	AM/FM IF	6.65
1302	IC	Dual Op-amp	6.80
1303	IC	AF PO	9.50
1304	IC	Chroma processor	13.15
1305	IC	Color demodulator	13.15
1306	IC	Video IF	15.35
1307	IC	Chroma processor	13.85
1308	IC	TV sound IF, det	9.10
1309	IC	FM IF	6.00
1310	IC	FM/AM IF, AGC	7.95
1311	IC	Noise cancelling amp	12.80
1312	IC	TV vert osc, amp	8.60
1313	IC	TV horiz osc, amp	11.45
1320	......	Mod-hybrid, AF PO, 25 W	7.75
1321	......	Mod-hybrid, AF PO, 55 W	13.75
1322	......	Mod-hybrid, AF PO, 80 W	18.00
1323	......	Mod-hybrid, AF PO, 15 W	13.90
1324	......	Mod-hybrid, dual AF PO, 10 W/channel	14.80
1325	......	Mod-hybrid, dual AF PO, 20 W/channel	17.15
1326	......	Mod-hybrid, AF PO, 24 W	12.95
1327	......	Mod-hybrid, AF PO, 35 W	17.90
1328	......	Mod-hybrid, AF PO, 50 W	18.60
1329	......	Mod-hybrid, dual AF PO, 20 W/channel	16.20
1330	......	Mod-hybrid, dual AF PO, 15 W/channel	14.20
1331	......	Mod-hybrid, dual AF PO, 25 W/channel	20.15
1332	......	Mod-hybrid, AF PO, 25 W	17.70
1333	......	Mod-hybrid, AF PO, 40 W	9.15
1334	......	Mod-hybrid, AF PO, 60 W	14.15
1335	......	Mod-hybrid, AF PO, 80 W	17.00
1336	......	Mod-hybrid, AF PO, 70 W	38.95
1337	......	Mod-hybrid, AF PO, 70 W	20.65
1338	......	Mod-hybrid, dual med power driver/amp	8.40
1339	......	Mod-hybrid, dual high power driver/amp	10.05
1340	......	Mod-hybrid, AF PO, 24 W	13.95
1341	......	Mod-hybrid, AF PO, 15 W	11.60
1342	......	Mod-hybrid, AF PO, 100 W	20.00
1343	......	Mod-hybrid, AF PO, 10 W	10.35
1344	......	Mod-hybrid, AF PO, 25 W	18.70
1345	......	Mod-hybrid, AF PO, 30 W	21.55

ECG No.	*	Description	Net Ea.
1346	......	Mod-hybrid, Darlington power pack, 60 W	$15.85
1347	......	Mod-hybrid, AF PO, 20 W/channel	12.55
1348	......	Mod-hybrid, AF PO, 20 W	15.85
1349	......	Mod-hybrid, AF PO, 20 W	11.70
1350	......	Mod-hybrid, AF PO, 50 W	45.60
1351	......	Mod-hybrid, AF PO, 25 W/channel	17.15
1352	......	Mod-hybrid, AF PO, 30 W	10.65
1353	......	Mod-hybrid, AF PO, 55 W	19.10
1354	......	Mod-hybrid, power Darlington, 60 W	18.60
1355	......	Mod-hybrid, power Darlington, 100 W	30.55
1361	IC	AF power amp, 12 W bridge	6.25
1362	IC	AF PO, 5.5 W	5.85
1363	IC	AF PO, 4.2 W	3.75
1364	IC	AF PO, 5.5 W/channel bridge	6.55
1365	IC	AF PO, 5 W	6.65
1366	IC	AF PO, 5.5 W	4.25
1367	IC	AF PO, 5 W/channel	6.35
1368	IC	AF PO, 5.8 W/channel	7.75
1369	IC	AF PO, 5.5 W	7.00
1370	IC	AF PO, 5.8 W	6.00
1371	IC	AF PO, 5.5 W/channel	5.75
1372	IC	AF PO, 3.9 W/channel bridge	6.50
1373	IC	AF PO, 5.5 W/channel	8.95
1374	IC	AF PO, 12 W	9.60
1375	IC	AF PO, 5.8 W	4.00
1376	IC	AF PO, 22 W	12.90
1377	IC	AF PO, 6 W/channel bridge	7.40
1378	IC	AF PO, 10 W	9.25
1379	IC	AF PO, 5.5 W/channel	7.05
1380	IC	AF PO, 14 W	13.10
1381	IC	AF PO, 2.1 W	4.45
1382	IC	AF PO, 4.2 W/channel bridge	6.35
1383	IC	AF PO, 5.1 W/channel	5.65
1384	IC	AF PO, 3.5 W	4.20
1385	IC	AF PO, 3.8 W	4.30
1386	IC	AF PO, 8 W	5.90
1387	IC	AF PO, 2.4 W/channel	7.40
1388	IC	AF PO, 5.8 W	6.40
1389	IC	AF PO, 20 W	7.45
1390	IC	AF PO, 12 W	6.15
1391	IC	AF PO, 12 W	6.15
1392	IC	AF PO, 7 W	4.90
1393	IC	AF PO, 7 W	4.55
1394	IC	AF PO, 5.5 W/channel bridge	8.15
1395	IC	AF PO, 5.8 W/channel	7.75
1396	IC	AF PO, 6.5 W/channel bridge	23.10
1400	IC	FM limiter	8.05
1401	IC	TV video amp	8.15
1402	IC	Electronic channel selector ckt	8.45
1403	IC	TV vert/horiz driver	8.00
1404	IC	TV sound IF amp/det/AF PO	5.50
1405	IC	TV video IF amp	9.10
1406	IC	TV vert deflection ckt	9.60
1407	IC	AF PO, 4.4 W	6.98
1408	IC	VCR color signal processor	14.90
1409	IC	Electronic channel selector	8.10
1410	IC	TV video/chroma processor	11.50
1411	IC	TV video IF/AGC/AFT	13.50
1412	IC	VCR video signal processor	10.50
1413	IC	TV video IF amp/AGC/AFT	9.80
1414	IC	VCR digital clock timer	12.90
1415	IC	TV color compensation ckt	6.80
1416	IC	Luminance amp/chroma demod	11.25
1417	IC	TV defl signal processor	8.70
1418	IC	TV sound IF amp	2.80
1419	IC	VCR head amp	7.00
1420	IC	TV vert output	5.60
1421	IC	VCR freq divider	4.10
1422	IC	VCR video signal processor	11.75
1423	IC	AF PO, 5.7 W	4.22
1424	IC	AF PO, 5.7 W	4.22
1425	IC	VCR capstan servo control	10.50
1426	IC	TV vert deflection	9.00
1427	IC	VCR freq divider	6.00
1428	IC	VCR cylinder servo control	15.10
1429	IC	TV vert output	15.50
1430	IC	TV video IF amp/det/AFT/AGC	9.00
1431	IC	Audio driver	3.80
1432	IC	FM noise conceller	5.85
1433	IC	Audio preamp	3.95
1434	IC	Voltage compensator, open collector	2.90
1435	IC	Dual audio preamp	2.65
1436	IC	FM IF amp/limiter/det/AFC	5.20
1437	IC	VIR signal processor	15.20
1438	IC	Audio tape program selector	8.65
1439	IC	Dual attenuator	8.40
1440	IC	TV video IF amp/det/AGC/AFC	10.90
1441	IC	FM IF amp/limiter/det/AF	4.75
1442	IC	Balanced modulator	4.15
1443	IC	TV sound IF amp	3.70
1444	IC	AF PO, 3 W/channel	7.90
1445	IC	TV horiz/vert osc/AFC/sync sep	9.80
1446	IC	VCR servo control	9.30
1447	IC	FM noise canceller	7.50
1448	IC	FM IF amp	2.70

*__D,__ diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
1449	IC	Lo noise equalizer amp	$ 2.28
1450	IC	AF PO, 5 W	7.95
1451	IC	Dual equalizer amp	3.60
1452	IC	AF PO, 1 W	3.75
1453	IC	Dual equalizer amp	5.60
1454	IC	TV sound IF amp/det	3.86
1455	IC	Dual equalizer amp	3.80
1456	IC	Dual audio preamp	4.35
1457	IC	Lo noise audio preamp	2.36
1458	IC	Dual audio preamp	2.90
1459	IC	Lo noise equalizer amp	3.40
1460	IC	Stereo demod, stereo/mone sw	4.80
1461	IC	PLL FM stereo demod	5.45
1462	IC	Audio preamp	2.85
1463	IC	AF PO, 2.3 W	4.60
1464	IC	Audio preamp	3.40
1465	IC	AF PO, 0.5 W	2.30
1466	IC	Audio preamp	2.20
1467	IC	AF PO, 0.5 W	4.15
1468	IC	Audio preamp	3.90
1469	IC	TV video IF amp/det/AGC/AFC	14.35
1470	IC	AF PO, 2.5 W	4.70
1471	IC	TV horiz osc/AFC/sync sep/vert osc	7.00
1472	IC	AF PO, 1 W	4.20
1473	IC	TV chroma/video processor	11.75
1474	IC	FM IF amp	4.45
1475	IC	CB PLL freq synthesizer	8.55
1476	IC	AF PO, 1.4 W	5.40
1477	IC	Dual lo power AD PO/driver	4.30
1478	IC	Solenoid driver/sensing ckt	6.00
1479	IC	TV power supply controller	3.35
1480	IC	Dual audio preamp	4.70
1481	IC	Dual audio amp	4.68
1482	IC	FM PLL stereo demod	6.25
1483	IC	TV video IF amp/det/AGC/AFT	13.25
1484	IC	FM PLL stereo demod/lamp driver	4.90
1485	IC	TV vert driver/output	9.95
1486	IC	AM/FM IF amp/limiter/det/AFC	7.15
1487	IC	AM RF amp/mxr/osc/det/AGC	3.85
1488	IC	FM IF amp/det/AF preamp/AGC/AFC	6.10
1489	IC	Stereo demod	6.30
1490	IC	AM/FM IF amp/det/AF preamp	5.25
1491	IC	AM RF/IF amp	4.40
1492	IC	TV video IF amp/sync sep/AGC	7.10
1493	IC	FM stereo demod	4.30
1494	IC	AM RF amp/osc/mxr/IF/det/AGC	4.90
1495	IC	AM RF amp/mxr/IF amp	4.25
1496	IC	TV sync sep/vert & horiz oscs	7.80
1497	IC	AF preamp w/automatic level control	2.60
1498	IC	Dual peak power meter driver	3.80
1499	IC	1/20 divider/prescaler	8.25
1500	IC	Voltage level indicator driver	3.78
1501	IC	Voltage level indicator driver	4.00
1502	IC	Voltage level indicator driver	3.75
1503	IC	Voltage level indicator driver	3.75
1504	IC	Voltage level indicator driver	4.10
1505	IC	Voltage level indicator driver	4.10
1506	IC	Voltage level indicator driver	5.40
1507	IC	Voltage level indicator driver	6.00
1508	IC	Voltage level indicator driver	7.15
1509	IC	Voltage level indicator driver	7.15
1510	IC	Voltage level indicator driver	3.85
1511	IC	Voltage level indicator driver	4.20
1512	IC	Voltage level indicator driver	4.20
1513	IC	Voltage level indicator driver	7.10
1514	IC	Voltage level indicator driver	4.40
1515	IC	Voltage level indicator driver	4.40
1516	IC	AF PO, 1.8 W	4.80
1517	IC	Dual audio preamp	4.15
1518	IC	AM RF/IF/det/AGC	4.85
1519	IC	Voltage level indicator driver	5.95
1520	IC	Electronic channel selector	8.20
1521	IC	TV sound IF amp/det	6.15
1522	IC	TV video IF amp/video amp	6.20
1523	IC	Dual lo noise audio preamp	3.90
1525	IC	FM differential IF amp	3.95
1526	IC	PLL freq synthesizer	13.75
1527	IC	FM IF amp/AFC/AN conv/IF amp/AGC	6.30
1528	IC	CB PLL freq synthesizer	11.90
1529	IC	Dual op amp	2.45
1530	IC	AF PO, 0.45 W	4.90
1531	IC	Voltage regulator for elec tuner	6.00
1532	IC	TV video chrome amp/demod	12.60
1533	IC	AM RF amp/mxr/osc/IF	4.35
1534	IC	AM/FM PLL freq synthesizer	15.05
1535	IC	TV sync/vert osc/horiz osc/AFC	6.60
1536	IC	CB PLL freq synthesizer	14.40
1537	IC	Time/freq display for AM/FM radio	15.25
1538	IC	TV horiz/vert osc/sync/AFC	5.55
1539	IC	TV horiz/vert osc/sync/AFC	6.35
1540	IC	TV horiz/vert osc/sync/AFC	5.60
1541	IC	FM IF amp/det	2.30
1542	IC	TV video IF amp	10.95
1543	IC	FM noise suppressor	5.70
1544	IC	TV horiz/vert osc/driver/AFC	7.80

ECG No.	*	Description	Net Ea.
1545	IC	TV IF/AGC/AFT	$10.95
2000	IC	Dolby circuit	11.45
2001	IC	Dolby circuit	10.45
2002	IC	Dolby circuit	8.55
2003	IC	Dolby circuit	6.50
2004	IC	Dolby circuit	13.80
2011	IC	7-ch MOS/TTL input driver	2.63
2012	IC	7-ch PMOS input driver	3.90
2013	IC	7-ch CMOS/TTL input driver	3.90
2014	IC	7-ch CMOS/PMOC input driver	3.90
2015	IC	7-ch CMOS/TTL input driver	2.63
2016	IC	8-ch MOS/TTL input driver	3.15
2017	IC	8-ch PMOS input driver	3.15
2018	IC	8-ch CMOS/TTL input driver	3.15
2019	IC	8-ch CMOS/PMOS input driver	3.15
2020	IC	8-ch CMOS/TTL input driver	3.15
2021	IC	8 digit/segment display driver	3.70
2022	IC	8 digit/segment display driver	3.70
2023	IC	7 segment display driver	2.10
2024	IC	2 digit BCD-to-7 segment decoder driver	8.00
2025	IC	Quad HV display driver for gas discharge displays	4.13
2026	IC	Hex HV display driver for gas discharge displays	4.49
2027	IC	Hex LED digit driver, MOS compatible	3.22
2028	IC	7-segment HV decoder/driver	5.60
2029	IC	HV digit driver for gas discharge displays	5.60
2030	IC	HV seg driver for gas discharge displays	4.95
2031	IC	HV digit driver for gas discharge displays	4.30
2032	IC	BCD-to-7 segment decoder/driver	2.31
2040	IC	7-stage freq divider	4.95
2041	IC	Organ digital noise generator	3.50
2042	IC	Organ top octave generator	11.99
2043	IC	Organ top octave generator	11.89
2050	IC	CMOS, 3½ digit A-D converter for LED display	19.58
2051	IC	CMOS, 3½ digit A-D converter for LED display	19.90
2052	IC	CMOS, 3½ digit A-D converter	6.25
2053	IC	CMOS, 8-bit A-D converter	11.40
2054	IC	3 digit analog to digital subsystem	9.80
2060	IC	PMOS digital alarm clock ckt. for LED	9.40
2061	IC	PMOS digital alarm clock ckt. for fluorescent display	9.40
2070	IC	Transistor array, 7 unit, 150 mA	3.30
2071	IC	Transistor array, 7 unit, 150 mA	3.30
2072	IC	Transistor array, 6 unit, 320 mA	3.25
2073	IC	Transistor array, 6 unit, 320 mA	3.25
2074	IC	Darlington array, 7 unit, 400 mA	3.60
2075	IC	Transistor array, 5 unit, 320 mA	3.40
2076	IC	Transistor array, 7 unit, 150 mA	3.50
2077	IC	Transistor array, 6 unit, 150 mA	3.65
2078	IC	Darlington array, 5 unit, 500 mA	3.30
2079	IC	Darlington array, 7 unit, 400 mA	3.20
2080	IC	Transistor array, 7 unit, 400 mA	3.25
2081	IC	Transistor array, 7 unit, 100 mA	3.05
2082	IC	Darlington array, 6 unit, 100 mA	3.00
2083	IC	Darlington array, 6 unit, 150 mA	3.25
2084	IC	Darlington array, 5 unit, 150 mA	3.20
2085	IC	Darlington array, 4 unit, 1.5 A	5.25
2086	IC	Darlington array, 4 unit, 1.5 A	5.25
2087	IC	Darlington array, 4 unit, 1.5 A	5.25
2088	IC	Darlington array, 4 unit, 1.5 A	5.25
2102	IC	MOS static 1K RAM	3.83
2104	IC	MOS dynamic 4K RAM	10.35
2114	IC	MOS static 4K RAM	12.10
2117	IC	MOS dynamic 16K RAM	15.74
2147	IC	MOS static 4K RAM	37.12
2708	IC	NMOS 8K UVEPROM, 450 nsec access	12.00
2716	IC	NMOS 16K UVEPROM, 450 nsec access	13.75
3000	......	LED indicator, red, clear (4/pkg.)	.40
3001	......	LED indicator, red, flooded (4/pkg.)	.40
3002	......	LED indicator, yellow, clear (2/pkg.)	.61
3003	......	LED indicator, green, clear (2/pkg.)	.61
3004	......	LED indicator, red (2/pkg.)	.55
3005	......	Infrared LED	2.11
3006	......	Infrared LED	2.36
3007	......	LED indicator, red (4/pkg.)	.37
3008	......	LED indicator, bright red (2/pkg.)	.55
3009	......	LED indicator, orange (2/pkg.)	.55
3010	......	LED indicator, green (2/pkg.)	.55
3011	......	LED indicator, yellow (2/pkg.)	.55
3012	......	LED indicator, red diffused (4/pkg.)	.38
3013	......	LED indicator, red jewel (4/pkg.)	.38
3014	......	LED indicator, green diffused (2/pkg.)	.55
3015	......	LED indicator, green jewel (2/pkg.)	.55
3016	......	LED indicator, red or green (2/pkg.)	1.15
3018	......	LED indicator, red, 90° angle (2/pkg.)	.61
3019	......	LED indicator, red, 60° angle (2/pkg.)	.61
3020	......	LED indicator, red, flooded (2/pkg.)	.47
3021	......	LED indicator, yellow (2/pkg.)	.65
3022	......	LED indicator, bright red (2/pkg.)	.49
3023	......	LED indicator, orange (2/pkg.)	.65

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
3024	......	LED indicator, green (2/pkg.)	$0.65
3025	......	LED indicator, red (2/pkg.)	.61
3026	......	LED indicator, red or green	3.35
3027	......	Infrared LED	3.25
3028	......	Infrared LED	4.40
3029	......	Infrared LED	1.01
3030	......	LED indicator, flashing red	2.96
3031	T	NPN, Si, phototransistor, infrared	11.70
3032	T	NPN, Si, phototransistor, infrared	11.70
3034	T	NPN, Si, phototransistor	1.13
3035	T	NPN, Si, photo Darlington	1.17
3036	T	NPN, Si, photo Darlington	4.79
3037	T	NPN, Si, phototransistor	3.85
3038	T	NPN, Si, phototransistor	1.21
3039	......	Switch, light actuated	3.05
3040	......	Optoisolator/phototransistor	1.71
3041	......	Optoisolator/phototransistor	1.89
3042	......	Optoisolator/phototransistor	1.57
3043	......	Optoisolator/phototransistor	3.10
3044	......	Optoisolator/photo Darlington	2.14
3045	......	Optoisolator/photo Darlington	2.25
3046	......	Optoisolator/photo SCR	3.75
3047	......	Optoisolator/photo triac	2.36
3048	......	Optoisolator/photo triac, 400 V	3.46
3049	......	Optoisolator/photo triac with zero crossing trigger	5.31
3050	......	LED display, red, .27″, numeric	14.75
3051	......	LED display, red, .27″, overflow	12.95
3052	......	LED display, red, .3″, numeric	2.45
3053	......	LED display, org, .3″ ,numeric	3.54
3054	......	LED display, grn, .3″, numeric	3.40
3055	......	LED display, yel, .3″, numeric	3.40
3056	......	LED display, red, .3″, numeric	2.39
3057	......	LED display, red, .3″ numeric	2.03
3058	......	LED display, org, .3″, numeric	3.29
3059	......	LED display, grn, .3″, numeric	3.27
3060	......	LED display, yel, .3″, numeric	3.27
3061	......	LED display, red, .3″, numeric	2.41
3062	......	LED display, org, .3″, numeric	3.27
3063	......	LED display, grn, .3″, numeric	3.25
3064	......	LED display, yel, .3″, numeric	3.25
3065	......	LED display, red, .3″, overflow	2.39
3068	......	LED display, red, .4″, numeric	2.92
3069	......	LED display, red, .4″, numeric	2.92
3070	......	LED display, org, .4″, numeric	3.60
3071	......	LED display, org, .4″, numeric	3.60
3074	......	LED display, red, .56″, two digits	4.80
3075	......	LED display, red, .56″, two digits	4.80
3076	......	LED display, red, .56″, 1½ digit	4.80
3077	......	LED display, red, .56″, 1½ digit	4.80
3078	......	LED display, red, .56″, numeric	2.95
3079	......	LED display, red, .56″, numeric	2.95
3080	......	LED display, red, .8″, numeric, common anode	2.21
3081	......	Optoisolator/phototransistor	3.20
3082	......	Optoisolator/phototransistor	3.25
3083	......	Optoisolator/phototransistor	2.07
3084	......	Optoisolator/phototransistor	2.05
3085	......	Optoisolator/photo FET	4.90
3086	......	Optoisolator/phototransistor	3.30
3087	......	Optoisolator, TTL compatible logic gate	9.30
3100	......	Optocoupled interrupter module	5.55
3101	......	Optocoupled interrupter module	5.65
3102	......	Optocoupled interrupter module	5.60
3103	......	Optocoupled interrupter module	5.70
3111	......	LED bar graph display, red	6.20
3112	......	LED bar graph display, green	7.45
3113	......	LED bar graph display, green	7.95
3114	......	LED bar graph display, green	9.10
3115	......	LED bar graph display, red	5.75
3116	......	LED bar graph display, green	6.60
3117	......	LED bar graph display, yellow	5.75
3150	......	LED multilamp display, red	2.94
3151	......	LED multilamp display, green	3.27
3152	......	LED multilamp display, yellow	3.60
3153	......	LED multilamp display, red	2.94
3154	......	LED multilamp display, green	3.27
3155	......	LED multilamp display, yellow	3.60
3160	......	LED indicator, rect, red (5/phg)	.48
3161	......	LED indicator, rect, green (5/pkg)	.60
3162	......	LED indicator, rect, yellow (5/pkg)	.61
3163	......	LED indicator, rect, red	.48
3164	......	LED indicator, rect, green (5/pkg)	.60
3165	......	LED indicator, rect, yellow (5/pkg)	.61
3166	......	LED indicator, rect, red (5/pkg)	.48
3167	......	LED indicator, rect, green (5/pkg)	.60
3168	......	LED indicator, rect, yellow (5/pkg)	.61
3539	IC	NMOS, static 2K RAM	18.55
3880	IC	NMOS 8-bit microprocessor, 4 MHz clock	23.20
3881	IC	NMOS parallel I/O interface adapter	20.45
3882	IC	NMOS programmable counter/timer	20.45
4000	IC	CMOS, dual 3-input NOR gate plus inverter	.73
4001B	IC	CMOS, quad 2-input NOR gate	.73

ECG No.	*	Description	Net Ea.
4002B	IC	CMOS, dual 4-input NOR gate	$0.73
4006B	IC	CMOS, 18-stage static shift register	3.00
4007	IC	CMOS, dual comp pair with inverter	.73
4008B	IC	CMOS, 4-bit full adder	3.00
4011B	IC	CMOS, quad 2-input NAND gate	1.01
4012B	IC	CMOS, dual 4-input NAND gate	.92
4013B	IC	CMOS, dual "D" flip-flop with set/reset	1.27
4014B	IC	CMOS, 8-stage static shift register	3.55
4015B	IC	CMOS, dual 4-stage static shift register	3.55
4016B	IC	CMOS, quad bilateral switch	1.27
4017B	IC	CMOS, decade counter/divider	3.55
4018B	IC	CMOS, presettable divide-by-N counter	3.20
4019B	IC	CMOS, quad AND/OR select gate	1.98
4020B	IC	CMOS, 14-stage binary/ripple counter	3.76
4021B	IC	CMOS, 8-stage serial to parallel shift reg.	3.55
4022B	IC	CMOS, counter/divider	2.24
4023B	IC	CMOS, triple 3-input NAND gates	.73
4024B	IC	CMOS, 7-stage binary counter	3.14
4025B	IC	CMOS, triple 3-input NOR gate	.73
4026B	IC	CMOS, decade counter/divider/decoder for 7 segment display	2.01
4027B	IC	CMOS, dual J-K master-slave flip-flop	1.81
4028B	IC	CMOS, BCD-to-decimal decoder	2.95
4029B	IC	CMOS, Presettable up/down counter	3.91
4030B	IC	CMOS, quad exclusive OR gate	1.33
4031B	IC	CMOS, 64-stage static shift register	3.74
4032B	IC	CMOS triple serial adder	2.17
4033B	IC	CMOS 8-stage static bidirectional parallel/serial input/output bus register	3.75
4034B	IC	CMOS, 8-stage, parallel-in/serial-out register	7.85
4035B	IC	CMOS, 4-stage, parallel-in/parallel-out register	3.52
4038B	IC	CMOS HV triple serial adder	2.17
4040B	IC	CMOS, 12-stage binary/ripple counter	3.76
4041	IC	CMOS HV quad true/complement buffer	1.75
4042B	IC	CMOS, quad-clocked "D" latch	2.57
4043B	IC	CMOS, quad 3-state, R/S latch	2.51
4044B	IC	CMOS, quad 3-state, R/S latch	2.60
4045B	IC	CMOS, 21-stage counter	2.39
4047B	IC	CMOS HV monostable/astable multivibrator	2.39
4048B	IC	CMOS HV multifunction expandable 8-input gate	1.22
4049	IC	CMOS, hex buffer/conv. (inverting)	1.35
4050B	IC	CMOS, hex buffer/conv. (non-inverting)	1.69
4051B	IC	CMOS, single 8-ch. multiplexer	4.10
4052B	IC	CMOS, diff. 4-ch. multiplexer	4.50
4053B	IC	CMOS, analog multi/demulti	2.89
4055B	IC	CMOS, BCD 7-segment decoder/driver	3.29
4056B	IC	CMOS, BCD-to-7 segment decoder/driver with strobed latch	2.68
4060B	IC	CMOS, 14-stage binary counter	3.29
4063B	IC	CMOS, 4-bit magnitude comparator	3.02
4066B	IC	CMOS, quad bilateral switch	1.71
4067B	IC	CMOS, 16-ch mpxr/dempxr	4.35
4068B	IC	CMOS, 8-input NAND gate	.91
4069	IC	CMOS, hex inverter	.82
4070B	IC	CMOS HV quad exclusive OR gate	.91
4071B	IC	CMOS, quad 2-input OR gate	.91
4072B	IC	CMOS, OR gate	.88
4073B	IC	CMOS AND gate	.73
4075B	IC	CMOS, OR gate	.73
4076B	IC	CMOS, 4-bit D type register	4.05
4077B	IC	CMOS, quad exclusive NOR gate	.75
4078B	IC	CMOS, 8-input NOR gate	.90
4081B	IC	CMOS, 2-input AND gate	.73
4082B	IC	CMOS AND gate	1.00
4085B	IC	CMOS, dual 2-wide, 2-input, AND-OR-Invert gate	2.32
4086B	IC	CMOS, expandable 4-wide, 2-input, AND-OR-Invert gate	2.32
4089B	IC	CMOS HV binary rate multiplier	3.12
4093B	IC	CMOS, quad 2-input NAND Schmitt trigger	1.12
4094B	IC	CMOS, 8-stage shift and store register	2.15
4095B	IC	CMOS, gated J-K flip-flop with non-inverting J & K inputs	1.88
4096B	IC	CMOS, gated J-K flip-flop with inverting and non-inverting J-K inputs	1.88
4097B	IC	CMOS, differential 8-ch multiplexer/demultiplexer	3.60
4098B	IC	CMOS, dual monostable mv	2.79
4099B	IC	CMOS, 8-bit addressable latch	5.60
4501	IC	CMOS, dual 4-input NAND, 2-input OR/NOR, 8-input AND/NAND gate	.61
4502B	IC	CMOS HV strobed hex inverter/buffer	2.20
4506B	IC	CMOS, dual expandable AND/OR invert gate	1.81
4508B	IC	CMOS HV dual 4-bit latch	4.16
4510B	IC	CMOS, presettable up/down counter	2.70
4511B	IC	CMOS, BCD-to-7 segment latch/decoder/driver	3.65

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
4512B	IC	CMOS, 8-input multiplexer with 3-stage output	$ 2.95
4513B	IC	CMOS, BCD-to-7 segment latch/ decoder/driver	2.24
4514B	IC	CMOS, 4-bit latch/4-to-16-line decoder	6.90
4515B	IC	CMOS, 4-bit latch/4-to-16-line decoder	6.90
4516B	IC	CMOS, presettable up/down counter	3.25
4517B	IC	CMOS, dual BCD up counter	4.70
4518B	IC	CMOS, dual BCD up counter	4.60
4520B	IC	CMOS, dual binary up counter	4.20
4521B	IC	CMOS, 24-stage freq divider	5.00
4522B	IC	CMOS, BCD programmable divide-by-N 4-bit counter	4.77
4526B	IC	CMOS, programmable divide-by-N 4-bit binary counter	2.20
4527B	IC	CMOS, BCD rate multiplier	3.95
4528B	IC	CMOS dual monostable multivibrator	3.42
4529B	IC	CMOS, single 8-ch or dual 4-ch analog data selector	2.34
4531B	IC	CMOS 12-bit parity tree	3.00
4532B	IC	CMOS, 8-bit priority encoder	2.98
4536B	IC	CMOS programmable timer	4.67
4539B	IC	CMOS, dual 4-ch. digital mixer	2.57
4541B	IC	CMOS, BCD-to-7 segment latch/ decoder/driver	2.43
4543B	IC	CMOS BCD-to-7 segment latch/ decoder driver for LCD	4.62
4547B	IC	CMOS BCD-to-7 segment latch/ decoder driver, hi current	3.63
4551B	IC	CMOS, quad 2-input analog multiplexer/demultiplexer	2.83
4553B	IC	CMOS, 3-digit BCD counter	5.25
4555B	IC	CMOS, dual binary to 1-of-4 decoder/ demultiplexer	1.94
4556B	IC	CMOS, dual binary to 1-of-4 decoder/ demultiplexer	1.94
4558B	IC	CMOS, BCD-to-7 segment decoder	3.53
4562B	IC	CMOS, 128-bit static shift register	6.50
4566B	IC	CMOS industrial time base generator	3.78
4568B	IC	CMOS, phase comparator & counter	5.80
4569B	IC	CMOS, programmable divide-by-N dual 4-bit BCD/binary counter	3.40
4583B	IC	CMOS dual Schmitt trigger	3.00
4585B	IC	CMOS 4-bit magnitude comparator	2.09
4597B	IC	CMOS, 8-bit 3-state latch w/counter	4.85
4598B	IC	CMOS, 8-bit 3-state latch with binary address decoder	4.83
5000A thru 5060A	ZD	Ratings of 2.4 V thru 200.0 V, 0.5 watt, ± 5%	.62
5010T1	ZD	5.1 V, 0.5 W, ± 1%	1.60
5011T1	ZD	5.6 V, 0.5 W, ± 1%	1.60
5013T1	ZD	6.2 V, 0.5 W, ± 1%	1.60
5019T1	ZD	10 V, 0.5 W, ± 1%	1.60
5021T1	ZD	12 V, 0.5 W, ± 1%	1.60
5063A thru 5105A	ZD	Ratings of 2.4 V thru 200.0 V, 1.0 watt, ± 5%	.92
5111A thru 5166A	ZD	Ratings of 3.3 V thru 200.0 V, 5.0 watts, ± 5%	2.18
5172A	ZD	3.3 V, 10 W, anode to stud, ± 5%	5.15
5172AK	ZD	3.3 V, 10 W, cathode to stud, ± 5%	5.15
5173A	ZD	3.6 V, 10 W, anode to stud, ± 5%	5.15
5173AK	ZD	3.6 V, 10 W, cathode to stud, ± 5%	5.15
5174A thru 5232A	ZD	Ratings of 3.3 V thru 200.0 V, 10 W, ± 5%; anode connected to stud	3.70
5174AK thru 5232AK	ZD	Ratings of 3.3 V thru 200.0 V, 10 W, ± 5%; cathode connected to stud	3.70
5240A thru 5296A	ZD	Ratings of 3.9 V thru 200.0 V, 50 W, ± anode connected to stud	4.75
5240AK thru 5296AK	ZD	Ratings of 3.9 V thru 200.0 V, 50 W, ± cathode connected to stud	4.75
5304	R	Si. bridge, 400 PRV, 1.5 A	1.55
5305	R	Si. bridge, 600 PRV, 1.5 A	1.69
5306	R	Si. bridge, 800 PRV, 1.5 A	2.02
5307	R	Si. bridge, 1000 PRV, 1.5 A	2.43
5312	R	Si. bridge, 100 PRV, 8 A	3.11
5313	R	Si. bridge, 200 PRV, 8 A	3.33
5314	R	Si. bridge, 400 PRV, 8 A	3.73
5315	R	Si. bridge, 600 PRV, 8 A	4.50
5316	R	Si. bridge, 800 PRV, 8 A	5.25
5317	R	Si, bridge, 100 PRV, 8 A	5.75
5322	R	Si, bridge, 200 V, 25 amps	5.35
5324	R	Si, bridge, 400 V, 25 amps	5.80
5326	R	Si, bridge, 600 V, 25 amps	6.30
5327	R	Si, bridge, 800 PRV, 25 A	6.90
5328	R	Si, bridge, 1000 PRV, 25 A	7.75
5332	R	Si, bridge, 600 PRV, 1 A	1.51
5334	R	Si, bridge, 1000 PRV, 1 A	2.26
5340	R	Si. bridge, 200 PRV, 40 A	7.94
5342	R	Si, bridge, 600 PRV, 40 A	9.95
5344	R	Si, bridge, 1000 PRV, 40 A	11.66
5351	SCR	High speed, 600 VRM, 5 A	$ 4.50
5360	SCR	High speed, 600 VRM, 35 A	26.55
5368	SCR	High speed, 600 VRM, 125 A	101.50
5369	SCR	High speed, 1200 VRM, 125 A	208.80
5371	SCR	High speed, 600 VRM, 125 A	102.95
5372	SCR	High speed, 1200 VRM, 125 A	210.25
5374	SCR	High speed, 600 VRM, 275 A	127.60
5375	SCR	High speed, 1200 VRM, 275 A	319.00
5377	SCR	High speed, 600 VRM, 475 A	249.40
5378	SCR	High speed, 1200 VRM, 475 A	420.50
5380	SCR	High speed, 600 VRM, 400 A	124.70
5381	SCR	High speed, 1200 VRM, 400 A	152.25
5386	SCR	High speed, 600 VRM, 700 A	211.70
5387	SCR	High speed, 1200 VRM, 700 A	348.00
5400	SCR	30 VRM, 0.8 amp	.86
5401	SCR	60 VRM, 0.8 amp	1.05
5402	SCR	100 VRM, 0.8 amp	1.12
5404	SCR	200 VRM, 0.8 amp	1.25
5405	SCR	400 VRM, 0.8 amp	2.32
5406	SCR	600 VRM, 0.8 amp	4.05
5408	SCR	200 VRM, 3 amps	2.93
5409	SCR	400 VRM, 3 amps	3.23
5410	SCR	600 VRM, 3 amps	3.52
5411	SCR	30 VRM, 4.0 amps	1.14
5412	SCR	60 VRM, 4.0 amps	1.34
5413	SCR	100 VRM, 4.0 amps	1.53
5414	SCR	200 VRM, 4.0 amps	1.72
5415	SCR	400 VRM, 4.0 amps	2.31
5416	SCR	600 VRM, 4.0 amps	3.08
5417	SCR	200 VRM, 10 A	2.31
5418	SCR	400 VRM, 10 A	2.68
5419	SCR	600 VRM, 10 A	3.18
5421	SCR	30 VRM, 4.0 amps	1.63
5422	SCR	60 VRM, 4.0 amps	1.76
5423	SCR	100 VRM, 4.0 amps	1.87
5425	SCR	Replacement for RCA 148112 & 143790	14.99
5426	SCR	400 VRM, 10 A	2.82
5431	SCR	30 VRM, 4.0 amps	1.33
5432	SCR	60 VRM, 4.0 amps	1.43
5433	SCR	100 VRM, 4.0 amps	1.56
5437	SCR	400 VRM, 8.0 amps	2.28
5438	SCR	600 VRM, 8.0 amps	3.65
5442	SCR	50 VRM, 8.0 amps	2.25
5444	SCR	200 VRM, 8.0 amps	2.44
5446	SCR	400 VRM, 8.0 amps	3.15
5448	SCR	600 VRM, 8.0 amps	6.05
5452	SCR	30 VRM, 4.0 amps	.96
5453	SCR	50 VRM, 4.0 amps	1.03
5454	SCR	100 VRM, 4.0 amps	1.15
5455	SCR	200 VRM, 4.0 amps	1.34
5457	SCR	400 VRM, 4.0 amps	1.96
5461	SCR	50 VRM, 8.0 amps	1.82
5462	SCR	100 VRM, 8.0 amps	2.00
5463	SCR	200 VRM, 8.0 amps	2.20
5465	SCR	400 VRM, 8.0 amps	2.84
5466	SCR	600 VRM, 8.0 amps	4.10
5468	SCR	800 VRM, 8.0 amps	4.90
5470	SCR	50 VRM, 5.0 amps	4.55
5471	SCR	100 VRM, 5.0 amps	5.90
5472	SCR	200 VRM, 5.0 amps	6.80
5474	SCR	400 VRM, 5.0 amps	8.55
5476	SCR	600 VRM, 5.0 amps	10.50
5481	SCR	50 VRM, 8.0 amps	5.55
5482	SCR	100 VRM, 8.0 amps	6.55
5483	SCR	200 VRM, 8.0 amps	7.20
5485	SCR	400 VRM, 8.0 amps	8.90
5487	SCR	600 VRM, 8.0 amps	11.40
5491	SCR	100 VRM, 10 amps	4.10
5492	SCR	200 VRM, 10 amps	4.45
5494	SCR	400 VRM, 10 amps	5.10
5496	SCR	600 VRM, 10 amps	6.25
5501	SCR	50 VRM, 16 amps	4.60
5502	SCR	100 VRM, 16 amps	5.15
5504	SCR	200 VRM, 16 amps	6.05
5507	SCR	400 VRM, 16 amps	8.25
5509	SCR	600 VRM, 16 amps	11.15
5511	SCR	200 VRM, 5.0 amps	2.70
5512	SCR	400 VRM, 5.0 amps	3.20
5513	SCR	600 VRM, 5.0 amps	3.70
5514	SCR	200 VRM, 20 amps	4.40
5515	SCR	400 VRM, 20 amps	6.25
5516	SCR	600 VRM, 20 amps	7.40
5517	SCR	200 VRM, 35 amps	6.25
5518	SCR	400 VRM, 35 amps	7.80
5519	SCR	600 VRM, 35 amps	9.65
5521	SCR	50 VRM, 25 amps	4.85
5522	SCR	100 VRM, 25 amps	5.25
5524	SCR	200 VRM, 25 amps	6.55
5527	SCR	400 VRM, 25 amps	8.20
5529	SCR	600 VRM, 25 amps	10.40
5531	SCR	800 VRM, 25 amps	19.45
5534	SCR	600 VRM, 35 A	14.60
5541	SCR	50 VRM, 35 amps	5.90
5542	SCR	100 VRM, 35 amps	6.95
5543	SCR	200 VRM, 35 amps	7.95

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
5545	SCR	400 VRM, 35 amps	$11.10
5547	SCR	600 VRM, 35 amps	14.75
5548	SCR	800 VRM, 35 amps	15.50
5550	SCR	50 VRM, 25 amps	3.63
5552	SCR	200 VRM, 25 amps	4.25
5554	SCR	400 VRM, 25 amps	6.00
5556	SCR	600 VRM, 25 amps	7.60
5558	SCR	800 VRM, 25 amps	11.60
5562	SCR	200 VRM, 35 amps	9.65
5564	SCR	400 VRM, 35 amps	12.95
5566	SCR	600 VRM, 35 amps	15.35
5567	SCR	200 VRM, 80 amps	19.90
5568	SCR	600 VRM, 80 amps	24.50
5569	SCR	1200 VRM, 80 amps	42.70
5570	SCR	200 VRM, 80 amps	39.00
5572	SCR	600 VRM, 80 amps	58.00
5574	SCR	1200 VRM, 80 amps	98.00
5575	SCR	200 VRM, 80 amps	39.00
5577	SCR	600 VRM, 80 amps	58.00
5579	SCR	1200 VRM, 80 amps	98.00
5580	SCR	200 VRM, 175 amps	64.90
5582	SCR	600 VRM, 175 amps	106.90
5584	SCR	1200 VRM, 175 amps	198.00
5587	SCR	600 VRM, 350 amps	167.70
5589	SCR	1200 VRM, 350 amps	231.80
5590	SCR	200 VRM, 300 amps	56.10
5591	SCR	600 VRM, 300 amps	81.50
5592	SCR	1200 VRM, 300 amps	135.00
5594	SCR	200 VRM, 550 amps	118.15
5595	SCR	600 VRM, 550 amps	137.25
5596	SCR	1200 VRM, 550 amps	209.60
5598	SCR	600 VRM, 1200 amps	222.40
5599	SCR	1200 VRM, 1200 amps	368.85
5601	......	Triac, 50 VRM, 4 amps	1.51
5602	......	Triac, 100 VRM, 4 amps	1.66
5603	......	Triac, 200 VRM, 4 amps	1.89
5605	......	Triac, 400 VRM, 4 amps	2.35
5607	......	Triac, 600 VRM, 4 amps	4.15
5608	......	Triac, 400 VRM, 8.0 amps	2.35
5609	......	Triac, 600 VRM, 8.0 amps	3.20
5610	......	Triac, 800 VRM, 8.0 amps	5.05
5612	......	Triac, 50 VRM, 10 amps	3.30
5613	......	Triac, 100 VRM, 10 amps	3.70
5614	......	Triac, 200 VRM, 10 amps	4.50
5616	......	Triac, 400 VRM, 10 amps	6.20
5618	......	Triac, 600 VRM, 10 amps	7.55
5622	......	Triac, 50 VRM, 10 amps	3.50
5623	......	Triac, 100 VRM, 10 amps	3.80
5624	......	Triac, 200 VRM, 10 amps	4.85
5626	......	Triac, 400 VRM, 10 amps	6.65
5628	......	Triac, 600 VRM, 10 amps	7.55
5629	......	Triac, 400 VRM, 4 A, isolated tab	2.02
5631	......	Triac, 50 VRM, 10 amps	1.92
5632	......	Triac, 100 VRM, 10 amps	2.10
5633	......	Triac, 200 VRM, 10 amps	2.26
5635	......	Triac, 400 VRM, 10 amps	3.40
5637	......	Triac, 600 VRM, 10 amps	3.90
5638	......	Triac, 400 VRM, 8 A, isolated tab	2.85
5640	......	Triac, 100 VRM, 2.5 amps	2.00
5641	......	Triac, 200 VRM, 2.5 amps	2.35
5642	......	Triac, 400 VRM, 2.5 amps	2.70
5643	......	Triac, 600 VRM, 2.5 amps	3.25
5645	......	Triac, 600 VRM, 10 amps, isolated tab	3.92
5646	......	Triac, 600 VRM, 10 amps, with internal trigger d/ac	4.20
5649	......	Triac, 600 VRM, 15 A, isolated tab	7.85
5650	......	Triac, 100 VRM, 2.5 amps	3.65
5651	......	Triac, 200 VRM, 2.5 amps	4.55
5652	......	Triac, 400 VRM, 2.5 amps	6.90
5653	......	Triac, 600 VRM, 2.5 amps	10.00
5655	......	Triac, 200 VRM, 0.8 amps	1.18
5656	......	Triac, 400 VRM, 0.8 amps	1.66
5657	......	Triac, 600 VRM, 0.8 amps	2.99
5667A	......	Triac, 600 VRM, 12 amps	18.50
5668A	......	Triac, 800 VRM, 12 amps	21.10
5669A	......	Triac, 1000 VRM, 12 amps	22.60
5672	......	Triac, 600 VRM, 25 A	11.70
5673	......	Triac, 200 VRM, 15 amps	5.00
5675	......	Triac, 400 VRM, 15 amps	6.15
5677	......	Triac, 600 VRM, 15 amps	7.70
5679	......	Triac, 600 VRM, 40 A	13.35
5681	......	Triac, 50 VRM, 25 amps	5.95
5682	......	Triac, 100 VRM, 25 amps	7.05
5683	......	Triac, 200 VRM, 25 amps	8.40
5685	......	Triac, 400 VRM, 25 amps	13.70
5687	......	Triac, 600 VRM, 25 amps	16.40
5688	......	Triac, 200 VRM, 40 A	7.15
5689	......	Triac, 400 VRM, 40 A	8.35
5690	......	Triac, 600 VRM, 40 A	9.25
5693	......	Triac, 200 VRM, 40 amps	8.25
5695	......	Triac, 400 VRM, 40 amps	9.65
5697	......	Triac, 600 VRM, 40 amps	11.40
5800	R	50 V PRV, 3 A	.51
5801	R	100 V PRV, 3 A	.76
5802	R	200 V PRV, 3 A	.87
5804	R	400 V PRV, 3 A	1.18

ECG No.	*	Description	Net Ea.
5806	R	600 V PRV, 3 A	$ 1.46
5808	R	800 V PRV, 3 A	1.93
5809	R	1000 V PRV, 3 A	2.60
5812	R	100 PRV, 6 A/22 A	1.58
5814	R	400 PRV, 6 A/22 A	1.84
5815	R	600 PRV, 6 A/22 A	2.89
5817	R	1000 PRV, 6 A/22 A	3.70
5818	R	200 PRV, 12 A, 200 nsec, DO-4 cathode case	4.02
5819	R	200 PRV, 12 A, 200 nsec, DO-4 anode case	4.02
5820	R	400 PRV, 12 A, 200 nsec, DO-4 cathode case	5.45
5821	R	400 PRV, 12 A, 200 nsec, DO-4 anode case	5.45
5822	R	600 PRV, 12 A, 200 nsec, DO-4 cathode case	7.43
5823	R	600 PRV, 12 A, 200 nsec, DO-4 anode case	7.43
5826	R	400 PRV, 50 A, press fit, cathode case	6.05
5827	R	400 PRV, 50 A, press fit, anode case	6.05
5828	R	800 PRV, 50 A, press fit, cathode case	7.08
5829	R	800 PRV, 50 A, press fit, anode case	7.08
5830	R	50 V PRV, 3 A, cathode case	1.16
5831	R	50 V PRV, 3 A, anode case	1.16
5834	R	200 V PRV, 3 A, cathode case	1.50
5835	R	200 V PRV, 3 A, anode case	1.50
5838	R	400 V PRV, 3 A, cathode case	2.33
5839	R	400 V PRV, 3 A, anode case	2.33
5842	R	600 V PRV, 3 A, cathode case	3.72
5843	R	600 V PRV, 3 A, anode case	3.72
5846	R	800 V PRV, 3 A, cathode case	5.55
5847	R	800 V PRV, 3 A, anode case	5.55
5848	R	1000 V PRV, 3 A, cathode case	7.45
5849	R	1000 V PRV, 3 A, anode case	7.45
5850	R	50 V PRV, 6 A, cathode case	1.55
5851	R	50 V PRV, 6 A, anode case	1.55
5854	R	200 V PRV, 6 A, cathode case	2.24
5855	R	200 V PRV, 6 A, anode case	2.24
5858	R	400 V PRV, 6 A, cathode case	3.54
5859	R	400 V PRV, 6 A, anode case	3.54
5862	R	600 V PRV, 6 A, cathode case	4.37
5863	R	600 V PRV, 6 A, anode case	4.37
5866	R	800 V PRV, 6 A, cathode case	5.85
5867	R	800 V PRV, 6 A, anode case	5.85
5868	R	1000 V PRV, 6 A, cathode case	7.90
5869	R	1000 V PRV, 6 A, anode case	7.90
5870	R	50 V PRV, 12 A, cathode case	1.73
5871	R	50 V PRV, 12 A, anode case	1.73
5874	R	200 V PRV, 12 A, cathode case	2.45
5875	R	200 V PRV, 12 A, anode case	2.45
5878	R	400 V PRV, 12 A, cathode case	3.25
5879	R	400 V PRV, 12 A, anode case	3.25
5882	R	600 V PRV, 12 A, cathode case	3.62
5883	R	600 V PRV, 12 A, anode case	3.62
5886	R	800 V PRV, 12 A, cathode case	6.95
5887	R	800 V PRV, 12 A, anode case	6.95
5890	R	1000 V PRV, 12 A, cathode case	9.40
5891	R	1000 V PRV, 12 A, anode case	9.40
5892	R	50 V PRV, 16 A, cathode case	1.90
5893	R	50 V PRV, 16 A, anode case	1.90
5896	R	200 V PRV, 16 A, cathode case	2.67
5897	R	200 V PRV, 16 A, anode case	2.67
5900	R	400 V PRV, 16 A, cathode case	3.71
5901	R	400 V PRV, 16 A, anode case	3.71
5904	R	600 V PRV, 16 A, cathode case	4.95
5905	R	600 V PRV, 16 A, anode case	4.95
5908	R	800 V PRV, 16 A, cathode case	7.60
5909	R	800 V PRV, 16 A, anode case	7.60
5910	R	1000 V PRV, 16 A, cathode case	8.75
5911	R	1000 V PRV, 16 A, anode case	8.75
5912	R	50 V PRV, 20 A, cathode case	2.14
5913	R	50 V PRV, 20 A, anode case	2.14
5916	R	200 V PRV, 20 A, cathode case	3.48
5917	R	200 V PRV, 20 A, anode case	3.48
5920	R	400 V PRV, 20 A, cathode case	4.60
5921	R	400 V PRV, 20 A, anode case	4.60
5924	R	600 V PRV, 20 A, cathode case	6.60
5925	R	600 V PRV, 20 A, anode case	6.60
5928	R	800 V PRV, 20 A, cathode case	8.90
5929	R	800 V PRV, 20 A, anode case	8.90
5932	R	1000 V PRV, 20 A, cathode case	9.65
5933	R	1000 V PRV, 20 A, anode case	9.65
5940	R	50 V PRV, 15 A, cathode case	2.67
5941	R	50 V PRV, 15 A, anode case	2.67
5944	R	200 V PRV, 15 A, cathode case	3.38
5945	R	200 V PRV, 15 A, anode case	3.38
5948	R	400 V PRV, 15 A, cathode case	4.50
5949	R	400 V PRV, 15 A, anode case	4.50
5952	R	600 V PRV, 15 A, cathode case	6.05
5953	R	600 V PRV, 15 A, anode case	6.05
5962	R	400 PRV, 25 A, press fit, cathode case	3.07
5963	R	400 PRV, 25 A, press fit, anode case	3.07
5966	R	800 PRV, 25 A, press fit, cathode case	5.47
5967	R	800 PRV, 25 A, press fit, anode case	5.74
5980	R	50 V PRV, 40 A, cathode case	2.53

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
5981	R	50 V PRV, 40 A, anode case	$ 2.53
5982	R	100 V PRV, 40 A, cathode case	3.26
5983	R	100 V PRV, 40 A, anode case	3.26
5986	R	200 V PRV, 40 A, cathode case	4.05
5987	R	200 V PRV, 40 A, anode case	4.05
5988	R	300 V PRV, 40 A, cathode case	5.05
5989	R	300 V PRV, 40 A, anode case	5.05
5990	R	400 V PRV, 40 A, cathode case	5.40
5991	R	400 V PRV, 40 A, anode case	5.40
5992	R	500 V PRV, 40 A, cathode case	6.45
5993	R	500 V PRV, 40 A, anode case	6.45
5994	R	600 V PRV, 40 A, cathode case	7.15
5995	R	600 V PRV, 40 A, anode case	7.15
5998	R	800 V PRV, 40 A, cathode case	9.60
5999	R	800 V PRV, 40 A, anode case	9.60
6002	R	1000 V PRV, 40 A, cathode case	11.00
6003	R	1000 V PRV, 40 A, anode case	11.00
6006	R	200 V PRV, 40 A, 200 nsec, cathode case	8.45
6007	R	200 V PRV, 40 A, 200 nsec, anode case	8.45
6008	R	400 V PRV, 40 A, 200 nsec, cathode case	12.72
6009	R	400 V PRV, 40 A, 200 nsec, anode case	12.72
6010	R	600 V PRV, 40 A, 200 nsec, cathode case	16.52
6011	R	600 V PRV, 40 A, 200 nsec, anode case	16.52
6020	R	50 V PRV, 60 A, cathode case	8.15
6021	R	50 V PRV, 60 A, anode case	8.15
6022	R	100 V PRV, 60 A, cathode case	8.65
6023	R	100 V PRV, 60 A, anode case	8.65
6026	R	200 V PRV, 60 A, cathode case	11.05
6027	R	200 V PRV, 60 A, anode case	11.05
6034	R	400 V PRV, 60 A, cathode case	13.45
6035	R	400 V PRV, 60 A, anode case	13.45
6040	R	600 V PRV, 60 A, cathode case	15.40
6041	R	600 V PRV, 60 A, anode case	15.40
6042	R	800 V PRV, 60 A, cathode case	16.95
6043	R	800 V PRV, 60 A, anode case	16.95
6044	R	1000 V PRV, 60 A, cathode case	19.10
6045	R	1000 V PRV, 60 A, anode case	19.10
6048	R	50 V PRV, 70 A, cathode case	6.75
6049	R	50 V PRV, 70 A, anode case	6.75
6050	R	100 V PRV, 70 A, cathode case	7.60
6051	R	100 V PRV, 70 A, anode case	7.60
6054	R	200 V PRV, 70 A, cathode case	9.05
6055	R	200 V PRV, 70 A, anode case	9.05
6060	R	400 V PRV, 70 A, cathode case	12.95
6061	R	400 V PRV, 70 A, anode case	12.95
6064	R	600 V PRV, 70 A, cathode case	14.75
6065	R	600 V PRV, 70 A, anode case	14.75
6068	R	800 V PRV, 70 A, cathode case	16.15
6069	R	800 V PRV, 70 A, anode case	16.15
6072	R	1000 V PRV, 70 A, cathode case	17.95
6073	R	1000 V PRV, 70 A, anode case	17.95
6074	R	200 V PRV, 85 A, cathode case	10.90
6075	R	200 V PRV, 85 A, anode case	10.90
6076	R	600 V PRV, 85 A, cathode case	13.45
6077	R	600 V PRV, 85 A, anode case	13.45
6078	R	1200 V PRV, 85 A, cathode case	22.90
6079	R	1200 V PRV, 85 A, anode case	22.90
6084	R	Schottky barrier, 45 V PRV, 30 amps, cathode case	11.80
6094	R	Schottky barrier, 45 V PRV, 60 amps, cathode case	12.45
6102	R	600 V PRV, 550 A, cathode case	110.20
6103	R	600 V PRV, 550 A, anode case	110.20
6104	R	1200 V PRV, 550 A, cathode case	128.00
6105	R	1200 V PRV, 550 A, anode case	128.00
6106	R	1600 V PRV, 450 A, cathode case	173.15
6107	R	1600 V PRV, 450 A, anode case	173.15
6110	R	600 PRV, 500 A, HR-16	53.00
6112	R	1200 PRV, 500 A, HR-16	78.00
6113	R	600 PRV, 1200 A, HR-23	106.25
6115	R	1200 PRV, 1200 A, HR-23	146.70
6116	R	600 PRV, 2200 A, HR-29	239.60
6118	R	1200 PRV, 2200 A, HR-29	335.40
6154	R	400 V, 150 A, cathode case	26.75
6155	R	400 V, 150 A, anode case	26.75
6156	R	600 V, 150 A, cathode case	33.10
6157	R	600 V, 150 A, anode case	33.10
6158	R	1000 V, 150 A, cathode case	47.60
6159	R	1000 V, 150 A, anode case	47.60
6162	R	1400 V PRV, 150 A, cathode case	60.75
6163	R	1400 V PRV, 150 A, anode case	60.75
6354	R	400 V, 300 A, cathode case	39.60
6355	R	400 V, 300 A, anode case	39.60
6356	R	600 V, 300 A, cathode case	47.25
6357	R	600 V, 300 A, anode case	47.25
6358	R	1000 V, 300 A, cathode case	67.90
6359	R	1000 V, 300 A, anode case	67.90
6362	R	1400 V PRV, 300 A, cathode case	104.40
6363	R	1400 V PRV, 300 A, anode case	104.40
6400B	T	Silicon unijunction	22.00
6400A	T	Silicon unijunction	7.75
6401	T	Silicon unijunction	1.73
6402	T	Silicon programmable unijunction	1.54
6403	......	Si bilateral switch, 1.0 A, 300 mW	1.39
6404	......	Si unilateral switch, 1.0 A, 300 mW	1.33
6405	......	Asymmetrical switch, 500 mA, 350 mW	1.33
6406	D	Bilat. trigger, 2 A, 150 mW, 20 $V_{(BR)F}$	$ 1.11
6407	D	Bilat. trigger, 2 A, 150 mW, 28 $V_{(BR)F}$	1.11
6408	D	Bilat. trigger, 2 A, 150 mW, 32 $V_{(BR)F}$	1.11
6409	T	Silicon unijunction	2.24
6410	T	Silicon unijunction	1.03
6411	D	Bilat. trigger, 2 A, 250 mW, 40 $V_{(BR)F}$	1.15
6412	D	Bilat. trigger, 2 A, 250 mW, 63 $V_{(BR)F}$	1.23
6415	D	Bidirectional SYDAC, 45-60 V_{BO}, 50 mA	1.83
6416	D	Bidirectional SYDAC, 55-65 V_{BO}, 50 mA	1.83
6417	D	Bidirectional SYDAC, 95-113 V_{BO}, 50 mA	1.83
6418	D	Bidirectional SYDAC, 104-118 V_{BO}, 50 mA	1.83
6419	D	Bidirectional SYDAC, 110-125 V_{BO}, 50 mA	1.83
6502	IC	NMOS 8-bit microprocessor, 1 MHz clock	14.00
6507	IC	NMOS, 8-bit microprocessor	11.75
6508	IC	MOS static 1K RAM	14.70
6800	IC	MOS 8-bit microprocessor	15.92
6802	IC	MOC 8-bit microprocessor, internal clock oscillator/driver, 128 bytes RAM	18.84
6810	IC	MOS static 1K RAM for 6800 system	7.95
6821	IC	MOS peripheral interface adapter for 6800 system	8.29
6850	IC	MOS asynchronous communications interface adapter	8.38
6875	IC	Digital 2-phase clock generator/driver for 6800 system	13.28
6880	IC	Schottky quad 3-state inverting bus transceiver	3.42
6889	IC	Schottky quad 3-state non-inverting bus transceiver	3.49
7400	IC	TTL, quad 2-input positive NAND gates	.66
7401	IC	TTL, quad 2-input positive NAND gates with open collector outputs	.66
7402	IC	TTL, quad 2-inputs positive NOR gates	.66
7403	IC	TTL, quad 2-input positive NAND gates with open collector outputs	.69
7404	IC	TTL, hex inverters	.79
7405	IC	TTL, hex inverters with open collector outputs	.79
7406	IC	TTL, hex inverter buffers/drivers with open collector hi-volt. outputs (30 V)	1.57
7407	IC	TTL, hex buffers/drivers with open collector hi-volt. outputs (30 V)	1.57
7408	IC	TTL, quad 2-input positive AND gates	.73
7409	IC	TTL, quad 2-input positive AND gates with open collector outputs	.73
7410	IC	TTL, triple 3-input positive NAND gates	.73
7411	IC	TTL, triple 3-input positive AND gates	.73
7412	IC	TTL, triple 3-input positive NAND gates with open collector outputs	.76
7413	IC	TTL, dual NAND Schmitt triggers	1.43
7414	IC	TTL, hex Schmitt trigger	3.69
7416	IC	TTL, hex inverter buffers/drivers with open collector hi-volt. outputs (15 V)	1.34
7417	IC	TTL, hex buffers/drivers with open collector hi-volt. outputs (15 V)	1.34
7420	IC	TTL, dual 4-input positive NAND gates	.63
7421	IC	TTL, replacement for SN7421, etc.	1.74
7422	IC	TTL, dual 4-input positive NAND gate	.95
7423	IC	TTL, expandable dual 4-input positive NOR gates with stroke	.95
7425	IC	TTL, dual 4-input NOR gates with stroke	.95
7426	IC	TTL, quad 2-input hi-volt. interface NAND gates	1.03
7427	IC	TTL, triple 3-input positive NOR gates	.84
7428	IC	TTL, quad 2-input positive NOR buffer/clock driver with totem pole output	.93
7430	IC	TTL, 8-input positive NAND gates	.69
7432	IC	TTL, quad 2-input positive OR gates	.94
7433	IC	TTL, quad 2-input positive NOR buffer with open collector output	.94
7437	IC	TTL, quad 2-input positive NAND buffers	1.16
7438	IC	TTL, quad 2-input positive NAND buffers with open collector outputs	1.16
7439	IC	TTL, quad 2-input NAND buffers with open collector outputs	1.55
7440	IC	TTL, dual 4-input positive NAND buffers	.58
7441	IC	TTL, 1-of-10 decoder driver for cold cathode ind. tubes	2.42
7442	IC	TTL, 4-line-to-10 line decoder (1-of-10) BCD-to-decimal	1.82
7443	IC	TTL, 4-line-to-10 line decoder (1-of-10) excess 3-to-decimal	3.26
7444	IC	TTL, 4-line-to-10 line decoder (1-of-10) excess 3 gray-to-decimal	3.26
7445	IC	TTL, BCD-to-decimal decoder/drivers (30 V)	3.11
7446	IC	TTL, BCD-to-seven segment decoder/driver (30 V)	2.53
7447	IC	TTL, BCD-to-seven segment decoder/driver (15 V)	2.35
7448	IC	TTL, BCD-to-seven segment decoder/driver	2.25

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

SYLVANIA ECG® Semiconductors

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
7450	IC	TTL, expandable dual 2-wide, 2-input AND-OR invert gates	$0.63
7451	IC	TTL, expandable dual 2-wide, 2 input AND-OR invert gates	.63
7453	IC	TTL, expandable 4-wide, 2-input AND-OR invert gates	.63
7454	IC	TTL, expandable 4-wide, 2-input AND-OR invert gates	.63
7460	IC	TTL, dual 4-input expander	.63
7470	IC	TTL, edge-triggered J-K flip-flops	1.01
7472	IC	TTL, J-K masterslave flip-flops	.87
7473	IC	TTL, dual J-K master-slave flip-flops	.95
7474	IC	TTL, dual D-type edge-triggered flip-flops	1.01
7475	IC	TTL, 4-bit bi-stable latches	1.32
7476	IC	TTL, dual J-K master-slave flip-flops with preset and clear	1.18
7480	IC	TTL, gated full adders	1.45
7481	IC	TTL, 16-bit (16x1) RAM	2.41
7482	IC	TTL, 2-bit binary full adders	2.21
7483	IC	TTL, 4-bit binary full adders	2.76
7485	IC	TTL, 4-bit magnitude comparator	4.19
7486	IC	TTL, quad 2-input exclusive OR gates	.87
7489	IC	TTL, 64-bit read/write memory	11.64
7490	IC	TTL, decade counter (÷2; ÷5)	1.42
7491	IC	TTL, 8-bit shift registers	2.03
7492	IC	TTL, divide by 12 counter (÷2; ÷6)	1.43
7493A	IC	TTL, 4-bit binary counters	1.69
7494	IC	TTL, 4-bit shift registers	2.12
7495	IC	TTL, 4-bit right-shift left-shift registers	1.69
7496	IC	TTL, 5-bit shift registers	2.15
7497	IC	TTL, 6-bit binary multiplier (synchronous rate)	7.71
8063	.....	Thermal cut-off, 151° F	1.20
8070	.....	Thermal cut-off, 162° F	1.20
8076	.....	Thermal cut-off, 171° F	1.20
8080A	IC	MOS 8-bit microprocessor	11.86
8081	.....	Thermal cut-off, 184° F	1.20
8085	.....	Thermal cut-off, 189° F	1.20
8090	.....	Thermal cut-off, 200° F	1.20
8092	IC	TTL dual 5-input NAND gate	1.17
8096	.....	Thermal cut-off, 209° F	1.20
8098	.....	Thermal cut-off, 212° F	1.20
8103	.....	Thermal cut-off, 220° F	1.20
8108	.....	Thermal cut-off, 229° F	1.20
8115	.....	Thermal cut-off, 243° F	1.20
8118	.....	Thermal cut-off, 250° F	1.20
8123	IC	TTL quad 2-line to 1-line data selector/multiplexer	2.54
8125	.....	Thermal cut-off, 263° F	1.20
8139	.....	Thermal cut-off, 286° F	1.20
8149	.....	Thermal cut-off, 306° F	1.20
8167	.....	Thermal cut-off, 340° F	1.20
8181	.....	Thermal cut-off, 364° F	1.20
8212	IC	Schottky 8-bit I/O port with 3-state output	4.25
8213	.....	Thermal cut-off, 421° F	1.20
8214	IC	Digital, 8-level priority interrupt control unit	5.20
8216	IC	Schottky 4-bit parallel bidirectional non-inverting bus driver	5.19
8219	IC	Digital, 1-of-16 data selector	4.80
8223	IC	Digital 1-of-8 demultiplexer	2.38
8224	IC	Schottky clock generator	3.77
8226	.....	Thermal cut-off, 443° F	1.20
8228	IC	Schottky system controller/driver	11.02
8233	IC	Digital quad 2-to-1 data selector	3.45
8234	IC	Digital quad 2-to-1 data selector	3.45
8235	IC	Digital quad 2-to-1 data selector	8.55
8242	.....	Thermal cut-off, 464° F	1.20
8250	IC	Digital 3-to-8 decoder	3.45
8255	IC	MOS programmable peripheral interface	11.12
8266	IC	Digital quad 2-to-1 multiplexer	4.25
8301	IC	Digital BCD-to-decimal decoder	3.19
8308	IC	Digital dual 4-bit latch	4.43
8309	IC	Digital 4-to-1 data selector	3.40
8314	IC	Digital 4-bit latch	2.68
8316	IC	Digital synchronous 4-bit binary counter	2.68
8318	IC	Digital 8-input priority encoder	4.10
8321	IC	Digital dual 1-of-4 decoder	4.79
8328	IC	Digital dual 8-bit shift register	7.30
8368	IC	Digital 7-segment latch/decoder/driver for common cathode LED	4.77
8370	IC	Digital 7-segment decoder/driver/latch with OC outputs	6.50
8374	IC	Digital 7-segment latch/decoder/driver for common anode LED	4.81
8520	IC	Digital cascadable module-N divider	10.25
8542	IC	Digital quad I/O registers	6.25
8546	IC	Digital 8-bit univ shift register	5.20
8552	IC	Digital synchronous 3-state decade counter/latch	5.85
8553	IC	Digital 8-bit I/O latch	5.85

ECG No.	*	Description	Net Ea.
8554	IC	Digital synchronous 3-state binary counter/latch	$5.85
8555	IC	Digital programmable decade counter	5.35
8556	IC	Digital programmable binary counter	3.53
8613	IC	Digital quad input gated "D" flip-flop	2.02
8853	IC	Digital retriggerable resettable monostable multivibrator	2.16
9093	IC	DTL, dual master-slave J-K flip-flop (5 MHz)	2.63
9094	IC	DTL, dual master-slave J-K flip-flop (8 MHz)	1.78
9097	IC	DTL, dual master-slave J-K flip-flop (8 MHz)	1.67
9099	IC	DTL, dual master-slave J-K flip-flop (5 MHz)	1.67
9109	IC	DTL, high voltage hex inverter	5.60
9110	IC	DTL, high voltage hex inverter	5.40
9111	IC	DTL, Rs flip-flop	4.10
9112	IC	DTL, high voltage hex inverter	5.40
9135	IC	DTL, hex inverter	2.30
9157	IC	DTL, quad buffer	2.30
9158	IC	DTL, quad power gate	2.50
9200	IC	IIL freq divider, VCR	1.48
9301	IC	HLL dual 5-input expandable NAND buffer gate with active pullup	4.76
9302	IC	HLL quad 2-input NAND buffer gate with open collector	4.13
9303	IC	HLL quad 2-input NAND buffer gate with passive pullup	4.13
9304	IC	HLL triple 4,3,4-input NAND buffer gate with passive pullup	6.40
9306	IC	HLL quad 2,2,3,3-input NOR gate with active pullup	6.40
9307	IC	HLL quad 2,2,3,3-input NOR gate with open collector	6.40
9311	IC	HLL clocked M/S flip-flop	6.25
9312	IC	HLL dual edge triggered J-K flip-flop	6.25
9321	IC	HLL expandable quad 2-input NAND gate with active pullup	3.35
9322	IC	HLL expandable dual 5-input NAND gate with active pullup	3.35
9323	IC	HLL expandable quad 2-input NAND gate with open collector	3.35
8324	IC	HLL expandable quad 2-input NAND gate with passive pullup	4.90
9325	IC	HLL quad 2,2,3,3-input NAND gate with active pullup	4.90
9326	IC	HLL quad 2,2,3,3-input NAND gate with passive pullup	3.15
9331	IC	HLL dual 5-input gate expander	5.10
9332	IC	HLL quad inverter and dual 2-input NAND gate with open collector	3.15
9333	IC	HLL quad inverter and dual 2-input NAND gate with passive pullup	3.15
9334	IC	HLL strobed hex NAND gate with open collector	5.80
9335	IC	HLL strobed hex NAND gate with passive pullup	3.32
9342	IC	HLL dual monostable multivibrator	6.00
9343	IC	HLL 4-bit comparator	13.25
9347	IC	HLL dual retriggerable monostable multivibrator	9.05
9361	IC	HLL dual input level interface	6.75
9362	IC	HLL dual output level interface	6.75
9363	IC	HLL quad output level interface	7.65
9367	IC	HLL quad Schmitt trigger with active pullup	8.45
9368	IC	HLL quad Schmitt trigger with open collector	10.40
9370	IC	HLL quad "D" flip-flop	7.95
9371	IC	HLL decade counter	7.90
9372	IC	HLL hexadecimal counter	9.90
9375	IC	HLL 4-bit shift register	9.75
9380	IC	HLL BCD-to-decade decoder/lamp driver	14.70
9381	IC	HLL BCD-to-decade decoder/logic driver	13.30
9382	IC	HLL BCD-to-decade decoder/gas discharge tube driver	13.30
9383	IC	HLL BCD-to-7 segment decoder/driver	13.30
9390	IC	HLL dual 4-input NAD (with expander) interface buffer	5.00
9391	IC	HLL dual 2-input AND interface buffer	5.00
9392	IC	HLL dual 2-input NAND interface buffer	5.00
9393	IC	HLL dual 2-input OR interface buffer	5.00
9394	IC	HLL dual 2-input NOR interface buffer	5.59
9400	IC	Pulse processor, VCR	6.95
9401	IC	Monostable multivibrator, VCR	4.40
9402	IC	Hall-effect switch	2.80
9403	IC	Binary to octal decoder for VCR	5.70
9600	IC	Digital retriggerable/resettable monostable multivibrator	2.97

***D**, diode; **FET**, field effect transistor; **IC**, integrated circuit; **R**, rectifier; **SCR**, silicon controlled rectifier; **T**, transistor; **ZD**, zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
9601	IC	Digital dual retriggerable/resettable monostable multivibrator	$ 2.16
9602	IC	Digital dual retriggerable/resettable monostable multivibrator	2.59
9615	IC	Digital dual differential line receiver	3.22
9660	IC	HTL, expandable dual 4-input NAND gate (active pullup)	2.79
9661	IC	HTL, expandable 4-input NAND gate (passive pullup)	2.79
9662	IC	HTL, expandable 4-input driver (NAND)	3.55
9663	IC	HTL, dual J-K flip-flop	4.55
9664	IC	HTL, master-slave R-S flip-flop	4.25
9665	IC	HTL, triple level translator tp=40 ns typ.	3.50
9666	IC	HTL, triple level translator tp=75 ns typ.	4.05
9667	IC	HTL, dual monostable multivibrator	5.45
9668	IC	HTL, quad 2-input NAND gate (passive pullup)	3.10
9669	IC	HTL, dual 4-input expander	3.05
9670	IC	HTL, triple 3-input NAND gate (passive pullup)	5.10
9671	IC	HTL triple 3-input NAND gate (active pullup)	3.25
9672	IC	HTL, quad 2-input NAND gate (active pullup)	3.20
9673	IC	HTL, dual 2-input AND-OR-invert gate (active pullup)	2.73
9674	IC	HTL, dual 2-input AND-OR-invert gate (passive pullup)	2.35
9675	IC	HTL, dual pulse stretcher	4.65
9676	IC	HTL, BCD-to-decimal decoder driver	6.95
9677	IC	HTL, hex-inverter with strobe (active pullup)	3.12
9678	IC	HTL, hex-inverter with strobe (without output resistors)	3.12
9679	IC	HTL, dual lamp/line driver	4.45
9680	IC	HTL, hex-inverter (active pullup)	3.05
9681	IC	HTL, hex-inverter (open collector)	3.05
9682	IC	HTL, quad latch	5.05
9683	IC	HTL, quad 2-input exclusive OR gate	4.95
9684	IC	HTL, decade counter	7.65
9685	IC	HTL, binary counter	8.95
9686	IC	HTL, 4-bit shift register	8.55
9688	IC	HTL, dual J-K flip-flop	5.95
9689	IC	HTL, hex-inverter (high voltage)	2.94
9690	IC	HTL, hex-inverter (active pullup)	2.59
9691	IC	HTL, hex-inverter/interface element	2.66
9696	IC	HTL, dual interface element, line driver/rcvr.	4.85
9800	IC	DTL, dual 5-input NAND gate (6K ohm pullup)	1.71
9801	IC	DTL, dual 5-input NAND gate (2K ohm pullup)	1.71
9802	IC	DTL, 8-input NAND gate (6K ohm pullup)	1.71
9803	IC	DTL, 8-input NAND gate (2K ohm pullup)	1.71
9804	IC	DTL, 10-input NAND gate (6K ohm pullup)	1.71
9805	IC	DTL, 10-input NAND gate (2K ohm pullup)	1.71
9806	IC	DTL, quad 2-input AND gate (6K ohm pullup)	1.71
9807	IC	DTL, quad 2-input AND gate (2K ohm pullup)	1.71
9808	IC	DTL, quad 2-input OR gate (6K ohm pullup)	1.71
9809	IC	DTL, quad 2-input OR gate (2K ohm pullup)	1.71
9810	IC	DTL, quad 2-input NOR gate (6K ohm pullup)	1.71
9811	IC	DTL, quad 2-input NOR gate (2K ohm pullup)	1.71
9812	IC	DTL, quad 2-input exclusive OR gate	1.78
9813	IC	DTL, quad latch with complementary outputs	4.60
9814	IC	DTL, quad latch	4.80
9900	IC	RTL, buffer (medium power)	6.50
9903	IC	RTL, 3-input gate (medium power)	9.10
9904	IC	RTL, half adder (medium power)	7.55
9905	IC	RTL, half shift register (medium power)	11.75
9906	IC	RTL, half shift register W I/O inverter (med. pwr.)	10.10
9907	IC	RTL, 4-input gate (medium power)	6.30
9908	IC	RTL, adder and exclusive OR (low power)	8.20
9909	IC	RTL, buffer (low power)	8.40
9910	IC	RTL, dual 2-input gate (low power)	6.30
9911	IC	RTL, 4 input gate and inverter (low power)	6.30
9912	IC	RTL, half adder (low power)	$ 8.40
9913	IC	RTL, type D flip-flop (low power)	12.90
9914	IC	RTL, dual 2-input NOR gate	7.40
9915	IC	RTL, dual 3-input gate (medium power)	8.55
9921	IC	RTL, gate expander (low power)	5.05
9924	IC	RTL, quad 2-input NOR gate (medium power)	8.85
9926	IC	RTL, J-K flip-flop (medium power)	10.80
9927	IC	RTL, quad inverter (medium power)	8.55
9930	IC	DTL, dual 4-input NAND/NOR gate	1.71
9931	IC	DTL, clocked flip-flop	1.75
9932	IC	DTL, dual 4-input NAND/NOR buffer	1.71
9933	IC	DTL, 4-input extender	1.71
9935	IC	DTL, extendable hex inverter	2.11
9936	IC	DTL, hex single input gate	2.55
9937	IC	DTL, hex single input gate (fast)	1.96
9941	IC	DTL, monostable multivibrator (input clamp diodes)	5.15
9944	IC	DTL, extendable quad 2-input NAND buffer gate (open col.)	2.14
9945	IC	DTL, clocked flip-flop	2.43
9946	IC	DTL, quad 2-input NAND/NOR gate	1.75
9948	IC	DTL, clocked flip-flop (fast)	2.61
9949	IC	DTL, quad 2-input NAND/NOR gate (fast)	2.32
9950	IC	DTL, AC coupled RS flip-flop	5.25
9951	IC	DTL, monostable multivibrator	4.85
9961	IC	DTL, dual 4-input NAND/NOR gate (fast)	1.93
9962	IC	DTL, triple 3-input NAND/NOR gate	1.93
9963	IC	DTL, triple 2-input NAND/NOR gate (fast)	1.93
9974	IC	DTL, J-K flip-flop	11.85
9976	IC	RTL, dual J-K flip-flop (low power)	5.95
9982	IC	RTL low power J-K flip-flop	12.80
9989	IC	RTL, hex inverter (medium power)	9.50
9990	IC	RTL medium power dual J-K flip-flop	9.15
40085B	IC	CMOS, 4-bit magnitude comparator	3.21
40097B	IC	CMOS, hex 3-state non-inverting buffer	2.00
40098B	IC	CMOS, hex 3-state inverting buffer	2.00
40100B	IC	CMOS, 32-state shift register	5.35
40106B	IC	CMOS, hex Schmitt trigger	1.32
40160B	IC	CMOS, 4-bit decade asynchronous reset counter	4.00
40161B	IC	CMOS, 4-bit binary asynchronous reset counter	4.00
40162B	IC	CMOS, 4-bit decade synchronous reset counter	4.00
40163B	IC	CMOS, 4-bit binary synchronous reset counter	4.00
40174B	IC	CMOS, hex D flip-flop	3.35
40175B	IC	CMOS, quad D flip-flop	3.65
40182B	IC	CMOS, look-ahead carry generator	2.49
40192B	IC	CMOS, 4-bit up-down synchronous decade counter	4.25
40193B	IC	CMOS, 4-bit up-down synchronous binary counter	4.25
40194B	IC	CMOS, 4-bit right-left shift register	2.64
40195B	IC	CMOS, 4-bit shift register	2.64
56004	......	Triac, 200 VRM, 15 A	3.80
56006	......	Triac, 400 VRM, 15 A	4.90
56008	......	Triac, 600 VRM, 15 A	5.65
56010	......	Triac, 800 VRM, 15 A	6.55
56014	......	Triac, 400 VRM, 25 A	8.30
56022	......	Triac, 200 VRM, 40 A	9.95
56024	......	Triac, 400 VRM, 40 A	11.45
56026	......	Triac, 600 VRM, 40 A	13.85
65101	IC	CMOS static 1K RAM	14.80
74107	IC	TTL, dual J-K master-slave flip-flop	.96
74109	IC	TTL, dual J-K positive edge triggered flip-flop with clear and preset	1.09
74110	IC	TTL, gated J-K M/S flip-flop with clear and preset	.96
74111	IC	TTL, dual J-K M/S flip-flop with clear and preset	1.28
74121	IC	TTL, monostable multivibrator	1.20
74122	IC	TTL, retriggerable monostable multivibrator and clear and internal timing register	1.12
74123	IC	TTL, dual retriggerable monostable multivibrator with clear	2.41
74125	IC	TTL, quad buffer with 3-state output; high disable	1.47
74126	IC	TTL, quad buffer with 3-state output; low disable	1.25
74128	IC	TTL, dual 4-input positive NAND 50/75 ohm line drive	1.26
74132	IC	TTL, Schmitt trigger positive NAND gate with inverter; totem pole output	1.77
74136	IC	TTL, quad exclusive-OR gate	1.11

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon. **ECG listing continued on following page.**

ECG REPLACEMENT SEMICONDUCTORS AND COMPONENTS (CONTINUED)

ECG No.	*	Description	Net Ea.
74141	IC	TTL, BCD-to-decimal decoder/driver-drives gas-filled cold-cathode indicator tubes directly	**$2.41**
74142	IC	TTL, BCD counter/4-bit latch/BCD decoder/driver	**4.90**
74143	IC	TTL, 4-bit counter/latch/decoder for 7-segment displays	**5.30**
74144	IC	TTL, 4-bit counter/latch/decoder	**5.30**
74145	IC	TTL, BCD-to-decimal decoder/drivers	**3.05**
74147	IC	TTL, 10-line decimal to 4-line BCD priority encoder	**2.18**
74150	IC	TTL, data sel/multiplexer-inverted outputs	**4.33**
74151	IC	TTL, data sel/multiplexer-complementary outputs	**2.27**
74152	IC	TTL, data selector/multiplexer	**7.80**
74153	IC	TTL, dual 4-line-to-1-line data selectors multiplexer	**2.51**
74154	IC	TTL, 4-line-to-16-line decoder multip.exer	**4.74**
74155	IC	TTL, dual 2-line-to-4-line decoder/demultiplexer-totempole outputs	**2.27**
74156	IC	TTL, dual 2-line-to-4-line decoder/demultiplexer-open collector outputs	**2.27**
74157	IC	TTL, quad 2-to-1 line data selector	**1.03**
74158	IC	TTL, quad 2-to-1 line data selector	**1.40**
74160	IC	TTL, sync decade counter with direct clear	**3.20**
74161	IC	TTL, sync binary counter with direct clear	**3.20**
74162	IC	TTL, decade counter with sync clear	**3.20**
74163	IC	TTL, binary counter with sync clear	**3.20**
74164	IC	TTL, 8-bit parallel-out serial shift register	**3.14**
74165	IC	TTL, parallel-load 8-bit shift register	**3.14**
74166	IC	TTL, 8-bit parallel or serial in-serial out shift req.	**3.49**
74170	IC	TTL, 4-by-4 register file	**7.91**
74173	IC	TTL, 4-bit "D" register	**1.50**
74174	IC	TTL, hex D-type flip-flops with clear and single-rail output	**3.20**
74175	IC	TTL, quad D-type flip-flops with clear and double-rail outputs	**2.76**
74176	IC	TTL, decade counter (can be connected in BCD ÷2, ÷5, or biquinary mode)	**2.85**
74177	IC	TTL, 4-bit binary counter (can be connected as ÷2, ÷8 or ÷16 counter)	**2.85**
74178	IC	TTL, 4-bit shift register with serial and parallel data entry	**3.29**
74179	IC	TTL, 4-bit shift register with serial and parallel data entry plus direct reset (RD) and a D (out) line	**$3.29**
74180	IC	TTL, 8-bit odd/even parity generator/checker	**3.61**
74181	IC	TTL, arith logic unit/function generator	**8.00**
74182	IC	TTL, look-ahead carry generator	**2.24**
74190	IC	TTL, BCD-sync up/down counter with up/down mode control	**4.15**
74191	IC	TTL, 4-bit binary sync up/down counter with up/down mode control	**4.15**
74192	IC	TTL, sync up/down decade counter-dual clock with clear	**3.87**
74193	IC	TTL, sync up/down 4-bit binary counter-dual clock with clear	**3.87**
74195	IC	TTL, 4-bit parallel access shift register	**1.99**
74196	IC	TTL, 50 MHz presettable decade counter and latch (can provide ÷2 and ÷5 counter)	**2.41**
74197	IC	TTL, 50 MHz presettable binary counter and latch (can provide ÷2 and ÷8 counter)	**2.41**
74198	IC	TTL, 8-bit right-left shift register (parallel inputs-parallel outputs)	**5.99**
74199	IC	TTL, sync 8-bit register	**5.99**
74221	IC	TTL, dual monostable multivibrator	**1.56**
74249	IC	TTL, BCD-to-7 segment decoder/driver	**2.74**
74251	IC	TTL, data selector/multiplexer	**1.61**
74290	IC	TTL, decade counter	**2.07**
74293	IC	TTL, 4-bit binary counter	**2.07**
74365	IC	TTL, hex non-inverting bus driver	**1.12**
74366	IC	TTL, hex inverting bus driver	**1.12**
74367	IC	TTL, hex non-inverting bus driver	**1.12**
74368	IC	TTL, hex inverting bus driver	**1.12**
74390	IC	TTL, dual decade counter	**2.48**
74393	IC	TTL, dual 4-bit binary counter	**3.03**
74490	IC	TTL, dual decade counter	**3.65**
75188	IC	DTL quad line driver	**2.03**
75189	IC	DTL quad line driver	**2.14**
75450B	IC	Dual peripheral AND driver	**1.48**
75451B	IC	Dual peripheral AND driver	**1.13**
75452B	IC	Dual peripheral NAND driver	**1.13**
75453B	IC	Dual peripheral OR driver	**1.13**
75454B	IC	Dual peripheral NOR driver	**1.13**
75491B	IC	4-seg MOS-LED anode driver	**1.28**
75492B	IC	6-digit MOS-LED cathode driver	**1.33**
75493	IC	4-seg MOS-LED anode driver	**1.66**
75494	IC	6-digit MOS-LED cathode driver	**1.69**
75497	IC	7-digit MOS-LED cathode driver	**3.55**
75498	IC	9-digit MOS-LED cathode driver	**4.55**

***D,** diode; **FET,** field effect transistor; **IC,** integrated circuit; **R,** rectifier; **SCR,** silicon controlled rectifier; **T,** transistor; **ZD,** zener diode. Material: Ge, germanium; Se, selenium; Si, silicon.

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NL-950	J	Long life (0-9)	33.00
NL-5750	J	Long life (0-9)	33.00
NL-5853C, ST	J	Long life (0-9)	33.00
NL-5870L, S, ST	J	Long life (0-9)	33.00

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NL-809	B	Long life rect., LH dec. pt, (0-9)	$35.35
NL-840	D	Long life (0-9)	24.00
NL-841	D	Long life, LH dec. pt. (0-9)	26.05
NL-842	D	Long life, RH dec. pt. (0-9)	26.05
NL-843	D	Long life (±)	25.30
NL-844	D	High contrast NL-840	30.85
NL-845	D	High contrast NL-841	26.70
NL-848	G	Long life, RH/LH dec. pts. (0-9)	30.40
NL-874	D	Inverted NL-840	30.85
NL-875	D	Inverted, long life, LH decimal point (0-9)	26.70
NL-876	D	NL-875 except RH decimal point	26.70
NL-900	D	Long life, tipless (0-9)	33.00
NL-901	D	NL-900 with LH decimal point	35.35
NL-903	D	Long life, tipless (±)	33.20
NL-904	D	Inverted, lg. life, tipless (0-9)	33.00
NL-905	D	NL-904 with LH decimal point	35.35
NL-5016	C	Standard life (±)	36.10
NL-5032	C	Long life (±)	35.65
NL-5440	K	Long life (0-9)	25.15
NL-5440A	K	Long life, tipless (0-9)	29.35
NL-5441	K	Long life, LH/RH dec. pts. (0-9)	26.60
NL-5441A	K	NL-5441 tipless	31.85
NL-5442	K	Long life (±)	24.75
NL-5442A	K	Long life, tipless (±)	25.40
NL-5961	B	Non-mercury rectangular (0-9)	69.30
NL-5971	L	Long life, alpha numeric	98.60
NL-5992	B	Long life, rectangular (±)	36.05
NL-6844A	C	Standard life (0-9)	37.40
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NL-821	D	Long life, LH decimal point (0-9)	37.25
NL-6034	C	Long life (±)	41.15
NL-7153	C	Standard life (0-9)	49.50
NL-8423/6091	C	Long life, wide angle (0-9)	41.15

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NL-8091	E	Long life, wide angle (0-9)	$73.00

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RTS-3	A	■			1.30	RTS-54*	K	5.45
RTS-4	B	1.90	RTS-14*	D	1.25	RTS-59	L	3.20
RTS-5	E	■	RTS-15*	D+				
RTS-6*	C	2.25	RTS-18*	D, G				

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NL-C6C	264.15
NL-C6H-1	113.60
NL-C6H-2	117.15
NL-C6H-3	117.15
NL-C6J	72.40
NL-C6J/K	75.20
NL-C6J/K-Ne*	108.45
NL-C6J-KP	108.10
NL-C6J/L/7321	76.70
NL-C6J/P6860	76.70
NL-KY21A	144.75
NL-FG-105	194.50
NL-632B	129.85
NL-678	164.45
NL-710/6011/7307A	34.70
NL-710A/7725	72.80
NL-710L/7518	45.95
NL-714/7021	33.85
NL-716/6855	47.90
NL-718	447.60
NL-734/5544	106.25
NL-734L	110.30
NL-740/6856	62.10
NL-740L/7022	76.00
NL-740P/6857	76.00
NL-760/6858	100.30
NL-760L/7023	108.35
NL-760P/6859	108.35
NL-770L	257.10
NL-770P	257.10
NL-780/C16H	455.65
NL-2050A	11.00
NL-5557/FG-17/715	25.60
NL-5559/FG57	80.50
NL-5560/FG95	130.55
NL-5563A	164.45
NL-5632/C3J	38.15
NL-5665/C16J	154.80
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NL-5870A	484.25
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NL-623	70.35
NL-625	207.05
NL-627	214.90
NL-635/7019	64.80
NL-635L/7020	69.30
NL-635P/6930	70.15
NL-643	64.75
NL-649/5834	58.50
NL-653/5835	87.65
NL-660	82.80
NL-660L/7786	85.05
NL-660P	85.05
NL-664L	142.35
NL-673	63.00
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*Life indicating tube; changes color to show approach of end to tube life.

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OB2	6.88
OB2WA	8.60
OC3	Use OC3A
OC3A	10.90
OD3	Use OD3A
OD3A	13.77
1P21*	132.00
1P28	56.00
1P28/V1	Use 1P28AV1
1P28A	60.00
1P28A/V1	79.00
1P28B	66.00
1P37	50.00
1P39	25.75
1P40	25.75
2BP1*	78.60
2C39WA/C	100.00
2C39WA/G	226.00
2D21	5.48
2E26*	21.00
3A4	8.23
3A5	13.93
3C23	44.30
3E29*	97.00
4-65A	Use 8165/4-65A
4-125A/4D21	107.00
4-250A/5D22	150.00
4-400A	Use 8438/4-400A
4-1000A	Use 8166/4-1000A
4CX250B	100.00
4X150A	107.00
4X500A	640.00
5ABP1	167.00
5R4GB	5.90
5R4GY	Use 5R4GB
5R4GYB	Use 5R4GB
5UP1*	60.00
6AH6WA	12.40
6AK6	5.95
6AN5	8.19
6AS6	7.84
6AS7G	Use 6AS7GA
6AS7GA	13.11
6AU6WB	Use 6AU6WC
6AU6WC	6.70
6D4	9.26
6DJ8/ECC88	5.32
6J4	9.01
6J6WA	10.49
6X4W	5.66
12AT7WA	Use 12AT7WC
12AT7WC	6.50
12AY7	5.80
83	14.21
407A	11.75
408A	11.50
502A	Use 2050A
575A*	72.00
604/7014	114.00
615/7018	36.00
673	79.00
710/6011	43.00
714/7021	36.00
760/6858	135.00

RCA Type	Net Each
807*	$ 12.00
810*	130.00
811A*	50.00
812A	50.00
813*	127.00
816	30.00
828	122.00
829B*	100.00
833A*	300.00
845	103.00
866A	28.00
869B	450.00
884	15.29
892R	2875.00
918	40.50
921	35.00
922	24.25
925	Use 2022
927	28.50
929	24.30
930	24.30
931A	31.00
931B	34.00
931VA*	31.50
934	28.50
935	81.45
1620	Use 6J7
1621	19.12
1629	5.67
2022	36.00
2042	162.00
2050	Use 2050A
2050A	8.52
2055	Use 931B
2060	120.00
4382	310.00
4383	310.00
4384	310.00
4385	310.00
4387	621.00
4389	621.00
4422	Use 931A
4454	1813.00
4471	52.00
4478	Use 7735
4488	Use 7735
4501V3	587.50
4501V4	759.00
4503	Use 4503A
4503A	810.00
4503AR	1265.00
4516	223.00
4517	171.00
4518	211.00
4522	1295.00
4526	620.00
4532/LS	600.00
4532A/U	655.00
4532B/U	1200.00
4532F	Use 4532UF
4532/U	410.00
4532/ULS	679.00
4532A/ULS	760.00
4532/UF	1071.00
4532UR	1710.00
4542	680.00
4547	2063.00
4552	30.00

RCA Type	Net Each
4569	$ 878.00
4572A	72.00
4589	880.00
4600A	885.00
4621	913.00
4628	4745.00
4629	975.00
4629A	1156.00
4631	299.00
4631S	309.00
4635	9645.00
4636	1400.00
4638	2173.00
4648	36382.00
4648V1	38397.00
4651	1410.00
4652/8042	43.00
4657	149.00
4661	2495.00
4662	316.00
4665	1350.00
4677	252.00
4687	1375.00
4688	1214.00
4804A/H	2928.00
4804A/HP1, P2, P4	3060.00
4804A/HP5	3550.00
4804B/H	4320.00
4804B/HP1, P2, P4	4440.00
4804B/HP5	4706.00
4804H	1625.00
4804H/P1, P2, P4	1750.00
4804H/P5	2080.00
4807	11444.00
4807A	11444.00
4817	2190.00
4821	2995.00
4830	274.00
4832	503.00
4833/U	367.00
4833A/U	570.00
4837	431.00
4840	150.00
4848	54.00
4849/H	4460.00
4849A/H	6000.00
4856	155.00
4875/U	360.00
4886	Use C83012E
4900	178.00
4900A	178.00
4902	171.50
4902A	171.50
4911	1015.00
5557	36.00
5560	143.00
5563A	229.00
5581	37.25
5582	41.45
5583	39.00
5636	14.96
5642	12.95
5651	Use 5651A
5651A	5.39
5654	7.61
5654/5W/6096	Use 5654
5663	7.10
5670	6.81
5671	11835.00
5672	7.03
5686	9.95
5687	8.85
5691	21.50
5692	20.40
5693	27.15
5696	6.15
5696A	5.65
5718	19.34
5725	7.38
5726	5.32
5727	6.88
5727/2D21W	Use 5727
5749	7.38
5750	7.30
5751	6.07
5763	7.28
5770	11250.00
5771	2875.00
5814A	5.81
5819*	214.00
5823	5.32
5824	16.38

RCA Type	Net Each
5840W	$ 14.83
5842/417A	30.50
5847/404A	35.45
5881	7.28
5899	16.79
5915	8.36
5946*	715.00
5963	5.31
5964	6.56
5965	6.32
6005	8.19
6012	16.73
6021	16.22
6072	8.36
6072A	7.65
6073	8.26
6074	8.69
6076	950.00
6076A	832.00
6080	19.25
6080WA	Use 6080WC
6080WC	33.95
6101	11.20
6130/3C45	165.00
6136	7.30
6146A	12.50
6146B/8298A	12.50
6146W*	21.00
6155	143.00
6156	Use 4-250A/5D22
6159	Use 6159B
6159B	26.00
6161*	775.00
6189	8.20
6189/12AU7WA	Use 6189
6197	7.80
6199	160.00
6201	6.72
6202	6.35
6211	6.65
6293*	22.00
6336A	88.45
6342A	210.00
6342A/V1	160.00
6360	Use 6360A
6360A	12.06
6386	25.30
6485	5.66
6524	57.00
6550	11.64
6550/V1†	22.11
6655A	204.00
6660/6BA6	5.53
6661/6BH6	6.30
6662/6BJ6	6.56
6663/6AL5	5.41
6664/6AB4	5.62
6669/6AQ5A	5.49
6676/6CB6A	5.24
6677/6CL6	8.03
6678/6U8A	6.15
6679/12AT7	5.41
6680/12AU7A	4.92
6681/12AX7A	5.09
6686	14.95
6688	16.30
6697A	Use 8773
6775/4-400C	143.00
6816*	212.00
6850	57.00
6883	15.00
6883B/8032A/8552	15.00
6884*	134.00
6922/E88CC	11.29
6939	59.50
6977	17.94
7054	6.30
7055	3.92
7056	5.03
7059	5.74
7060	8.19
7061	7.14
7094	193.00
7117	41.50
7167	5.74
7183A	1887.00

*Available to MIL specifications at no extra charge. †Price shown is per matched pair.

Prices shown do not include state or local sales and similar taxes. All prices subject to change or withdrawal without notice.

RCA

GENERAL PURPOSE AND SPECIAL BROADCAST TUBES

GENERAL PURPOSE INDUSTRIAL TUBES (CONTINUED)

RCA Type	Net Each
7203/4CX250B V1	Use 4CX250B
7213	$ 1236.00
7214	1271.50
7258	8.10
7262A	420.00
7262A/F	750.00
7262A/R	1200.00
7265	990.00
7308	12.75
7360	16.55
7457*	212.00
7551	9.95
7558	9.95
7649	515.00
7650*	1040.00
7651*	1040.00
7735	67.25
7735A	153.00
7735B	250.00
7764	291.00
7788	52.90
7801	1325.00
7843*	127.00
7905	21.40
8000	131.00
8008	45.00
8020W	57.00
8032	Use 6883B/8032A/8552
8042	Use 4562/8042
8072	136.00
8077/7054	7.61
8106	11.56
8121	145.00
8122	153.00
8122/V1†	490.00
8134	560.00
8134/F	1025.00
8134/R	1060.00
8136	5.32
8165/4-65A	129.00
8166/4-1000A	829.00
8184	11095.00
8203	21.85
8226	325.00
8227	Use 4621
8233	99.15
8393	20.12
8437	9200.00
8438/4-400A	161.00
8438A/4-400AX	Use 8438/ 4-400AX
8507	248.50
8507A	385.00

RCA Type	Net Each
8507A F	$ 918.00
8507A R	1286.00
8541	97.00
8541A	250.00
8541A F	783.00
8541A R	1184.00
8541A X	504.00
8571	1313.00
8575	589.00
8575 V1	Use 8575
8596*	174.00
8644	523.00
8645	729.00
8684	7290.00
8684R	3540.00
8773	6000.00
8793	4388.00
8794	3930.00
8828	685.00
8844	54.50
8850	1073.00
8852	1203.00
8854	2000.00
8950	13.88
9002	11.15
9003	16.38
9006	5.77
AJ2102	127.00
AJ2136V1	555.00
AJ2137V1	455.00
AJ2142	257.00
AJ2144	64.00
AJ2145	62.00
AJ2172	4700.00
AJ2172V1	4700.00
AJ2180	Use AJ2145
AJ2216	707.00
AJ2225	Use AJ2262
AJ2232	14.00
AJ2240	28.00
AJ2241	28.00
AJ2242	28.00
AJ2243	29.50
AJ2244	28.00
AJ2245	28.00
AJ2246	28.00
AJ2247	33.50
AJ2248	7.50
AJ2249	7.50
AJ2250	35.00
AJ2252	43.00
AJ2253	95.00
AJ2254	135.00

RCA Type	Net Each
AJ2255	$ 135.00
AJ2256	7.50
AJ2257	7.50
AJ2258	8.50
AJ2259	8.50
AJ2260	20.00
AJ2261	45.00
AJ2262	38.00
AJ2263	80.00
C1K/6014	63.00
C3J 5632	57.00
C3JA/5684	57.00
C3J L	63.00
C6J/5C21	104.00
C6JA/5685	107.00
C16J 5665	197.00
C7151Q	1265.00
C7151W	643.00
C7164R	728.00
C21145H	24856.00
C21145HP1	44000.00
C21194	19107.00
C21196	8858.00
C21198	23287.00
C21203	21120.00
C21203A	21120.00
C21204	21120.00
C21204A	21120.00
C23151	6765.00
C23174AU	2035.00
C23174BU	4840.00
C23174CU	6573.00
C23174U	1385.00
C23219	7370.00
C23225	2491.50
C31000AJ	1050.00
C31000M	1875.00
C31007H	Use S83038E
C31016F	800.00
C31016G	785.00
C31024	1530.00
C31024A	1750.00
C31034	1215.00
C31034-02	1375.00
C31034-04	1300.00
C31034A	1688.00
C31034A-02	1750.00
C31034A-04	Use C31034A

RCA Type	Net Each
C31057	2000.00
C31059	470.00
C31059A	1240.00
C31061A	874.00
C70132D	1210.00
C73435Q	20680.00
C73435U	20680.00
C83012E	164.00
C83026E	390.00
C83027E	1375.00
C83027E10	1500.00
C83027F	1625.00
C83027E11	1750.00
C83029E	918.00
C83029F	1400.00
C83040E	285.00
PF1006A	179.00
PF1028B	865.00
PF1039	264.00
PF1040	372.00
PF1041N	100.00
PF1041P	100.00
PF1042	114.00
PF1043	107.00
SID52501AD	1612.00
SID52501BD	2075.00
SID52501D	1060.00
S81007E	715.00
S83006E	260.00
S83006EM1	260.00
S83009E	172.00
S83010E	135.00
S83010EM1	135.00
S83013F	221.00
S83013FM1	221.00
S83019E	157.00
S83019EM1	157.00
S83019F	157.00
S83019FM1	157.00
S83020F	214.00
S83020FM1	214.00
S83021E	164.00
S83021EM1	164.00
S83022F	214.00
S83022FM1	214.00
S83025F	214.00
S83025FM1	214.00
S83038E	193.00

*Available to MIL specifications at no extra cost. **Price on request. †Matched pair.

SPECIAL BROADCAST TUBES

RCA Type	Net Each
3CX3000A7	$ 848.00
3CX5000H3	2000.00
3CX10000A7	2250.00
3CX20000A7	3000.00
9C25	11430.00
BC4532U	1545.00
BC4592B	2620.00
BC4592G	2620.00
BC4592L	2620.00
BC4592R	2620.00
BC4593R	2800.00
BC4594G	2800.00
BC4594L	2800.00
BC4594R	2800.00

RCA Type	Net Each
BC4809	$ 907.00
BC4809B	907.00
BC4909	2680.00
BC4992B	2620.00
BC4992G	2620.00
BC4992L	2620.00
BC4992R	2620.00
BC4993R	2800.00
BC4994G	2800.00
BC4994L	2800.00
BC4994R	2800.00
6166A/7007	3553.00
5762	1360.00
6181	5495.00
7007	Use 6166A/7007

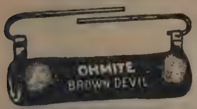
RCA Type	Net Each
7289/3CX100A5	$ 136.00
BC7735	357.00
BC8134	1225.00
8167/4CX300A	335.00
8168/4CX1000A	600.00
8169/4CX3000A	1375.00
8170/4CX5000A	1813.00
8171/4CX100000D	2025.00
8281/4CX15000A	2438.00
BC8480	1750.00
8480	1750.00
8501	4538.00
BC8507	421.00
BC8541	560.00
8791	657.00

RCA Type	Net Each
8791/V1	$ 657.00
8792	1174.00
8792/V1	1133.00
8806	3931.00
8807	3693.00
8890	3816.00
8891	4320.00
8916	4462.00
8976	3829.00
8977	3471.00
8984	8332.00
8985	2265.00
8986	2000.00
8988	4000.00
9007	5200.00
9011	2193.00

Prices shown do not include state or local sales and similar taxes. All prices subject to change or withdrawal without notice.

OHMITE® Fixed Resistors

BROWN DEVIL® FIXED RESISTORS—TYPE 200



Wire-wound, vitreous enameled resistors, durable and rugged. **Resistance Tolerance:** For values 1 ohm and higher, ±5%; for 0.5 ohm, ±10%. Tinned leads 1½" lg.; 3 and 5¼ W, 20 AWG; 8, 12 and 20 W, 18 AWG.

3-Watt Size

Ohms	Stock No.	Ohms	Stock No.
1.0	2712	150	2764
1.1	2713	160	2765
1.2	2714	180	2766
1.3	2715	200	2767
1.5	2716	220	2768
1.6	2717	240	2769
1.8	2718	270	2770
2.0	2719	300	2771
2.2	2720	330	2772
2.4	2721	360	2773
2.7	2722	390	2774
3.0	2723	430	2775
3.3	2724	470	2776
3.6	2725	510	2777
3.9	2726	560	2778
4.3	2727	620	2779
4.7	2728	680	2780
5.1	2729	750	2781
5.6	2730	820	2782
6.2	2731	910	2783
6.8	2732	1000	2784
7.5	2733	1100	2785
8.2	2734	1200	2786
9.1	2735	1300	2787
10	2736	1500	2788
11	2737	1600	2789
12	2738	1800	2790
13	2739	2000	2791
15	2740	2200	2792
16	2741	2400	2793
18	2742	2700	2794
20	2743	3000	2795
22	2744	3300	2796
24	2745	3600	2797
27	2746	3900	2798
30	2747	4300	2799
33	2748	4700	2800
36	2749	5100	2801
39	2750	5600	2802
43	2751	6200	2803
47	2752	6800	2804
51	2753	7500	2805
56	2754	8200	2806
62	2755	9100	2807
68	2756	10K	2808
75	2757		
82	2758		
91	2759		
100	2760		
110	2761		
120	2762		
130	2763		

5¼-Watt Size

Ohms	Stock No.	Ohms	Stock No.
1.0	2822	150	2874
1.1	2823	160	2875
1.2	2824	180	2876
1.3	2825	200	2877
1.5	2826	220	2878
1.6	2827	240	2879
1.8	2828	270	2880
2.0	2829	300	2881
2.2	2830	330	2882
2.4	2831	360	2883
2.7	2832	390	2884
3.0	2833	430	2885
3.3	2834	470	2886
3.6	2835	510	2887
3.9	2836	560	2888
4.3	2837	620	2889
4.7	2838	680	2890
5.1	2839	750	2891
5.6	2840	820	2892
6.2	2841	910	2893
6.8	2842	1000	2894
7.5	2843	1100	2895
8.2	2844	1200	2896
9.1	2845	1300	2897
10	2846	1500	2898
11	2847	1600	2899
12	2848	1800	2900
13	2849	2000	2901
15	2850	2200	2902
16	2851	2400	2903
18	2852	2700	2904
20	2853	3000	2905
22	2854	3300	2906
24	2855	3600	2907
27	2856	3900	2908
30	2857	4300	2909
33	2858	4700	2910
36	2859	5100	2911
39	2860	5600	2912
43	2861	6200	2913
47	2862	6800	2914
51	2863	7500	2915
56	2864	8200	2916
62	2865	9100	2917
68	2866	10K	2918
75	2867	11K	2919
82	2868	12K	2920
91	2869	13K	2921
100	2870	15K	2922
110	2871	16K	2923
120	2872	18K	2924
130	2873	20K	2925

Ohms	Stock Number 8 Watts	12 Watts	20 Watts
0.5	......	1700A	1800A
1.0	1500	1701	1802A
1.5	1500B	1704	......
2.0	1501	1705	1802B
3.0	1502	1706	1802C
4.0	1503	1707	1802D
5.0	1504	1708	1803
7.5	1505	1709	......
10	1506	1710	1804
12	1507	1711	......
15	1508	1712	......
20	1509	1713	......
25	1510	1714	1805
30	1511	1715	......
35	1512	1716	......
40	1513	1717	......
50	1514	1718	1806
75	1515	1719	1807
100	1516	1720	1808
125	1517	1721	......
150	1518	1722	1809
200	1519	1723	1810
225	1520	1724	......
250	1521	1725	1811
300	1522	1726	1812
350	1523	1727	1813
400	1524	1728	1814
450	1525	1729	......
500	1526	1730	1815
600	1527	1731	......
650	......	......	1816
700	1528	1732	1817
750	1529	1733	1818
800	1530	1734	1819
900	1531	1735	1820A
1000	1532	1736	1821
1100	1533	1737	......
1200	1534	1738	1822
1250	1535	1739	1823
1500	1536	1740	1824
1750	1537	1741	1825
2000	1538	1742	1827

Ohms	Stock Number 8 Watts	12 Watts	20 Watts
2250	1539	1743	1828
2500	1540	1744	1830
2750	......	......	1831
3000	1541	1745	1832
3500	1542	1746	1833
4000	1543	1747	1834
4500	1544	1748	1835
5000	1545	1749	1836
6000	1546	1750	1837
7000	1547	1751	1838
7500	1548	1752	1839
8000	1549	1753	1840
8500	......	1754	......
9000	1550	1754A	1840A
10K	1551	1755	1841
11K	......	1756	......
12K	......	1757	......
12.5K	1552	1758	1842
13.5K	......	1759	......
15K	1553	1761	1843
16K	......	1762	......
17.5K	1554	1763	......
18K	......	1764	......
20K	1555	1765	1844
22.5K	1556	1766	......
25K	1557	1767	1845
30K	......	1768	1846
35K	......	1769	1847
40K	......	1770	1848
45K	......	1771	1849
50K	......	1772	1850
55K	......	......	1851
60K	......	......	1852
65K	......	......	1853
70K	......	......	1854
75K	......	......	1855
80K	......	......	1856
85K	......	......	1857
90K	......	......	1858
95K	......	......	1859
100K	......	......	1860

3-Watt Brown Devils

Values, Ohms*	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
1.0–9.1	$1.13	$0.98	$0.81	$0.69	$0.56	$0.52
10–1K	.99	.83	.69	.58	.50	.45
1.1K–4.7K	1.10	.94	.78	.67	.55	.50
5.1K–10K	1.13	.98	.81	.69	.56	.52

5¼-Watt Brown Devils

Values, Ohms*	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
1.0–9.1	$1.18	$1.00	$0.82	$0.71	$0.58	$0.53
10–1K	1.03	.86	.72	.60	.52	.48
1.1K–4.7K	1.13	.98	.81	.69	.56	.52
5.1K–10K	1.18	1.00	.82	.71	.58	.53
11K–20K	1.30	1.10	.92	.78	.66	.58

8-Watt Brown Devils

Values, Ohms*	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
1.0–7.5	$1.26	$1.06	$0.86	$0.76	$0.63	$0.55
10–1K	1.10	.94	.78	.67	.55	.50
1.1K–5K	1.18	1.00	.82	.71	.58	.53
6K–10K	1.32	1.12	.93	.79	.67	.59
12.5K–20K	1.63	1.38	1.13	.99	.82	.73
22.5K, 25K	1.71	1.45	1.20	1.03	.85	.77

12-Watt Brown Devils

Values, Ohms*	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
0.5–7.5	$1.63	$1.38	$1.13	$0.99	$0.82	$0.73
10–1K	1.13	.98	.81	.69	.56	.52
1.1K–5K	1.21	1.04	.84	.72	.60	.54
6K–20K	1.63	1.38	1.13	.99	.82	.73
22.5K–40K	1.71	1.45	1.20	1.03	.85	.77
45K, 50K	1.86	1.59	1.30	1.11	.93	.83

20-Watt Brown Devils

Values, Ohms*	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
0.5–5.0	$1.86	$1.59	$1.30	$1.11	$0.93	$0.83
10–1K	1.32	1.12	.93	.79	.67	.59
1.2K–5K	1.36	1.16	.96	.82	.69	.60
6K–20K	1.79	1.52	1.26	1.08	.89	.81
25K–40K	1.93	1.64	1.35	1.16	.98	.86
45K–60K	2.25	1.89	1.58	1.34	1.11	1.02
65K–80K	2.66	2.27	1.87	1.60	1.34	1.20
85K–100K	3.07	2.61	2.15	1.84	1.54	1.37

*Restricted to values shown in table of stock numbers. Prices are for each unit ordered, **not** assortments.

INDUSTRIAL AND SERVICE RESISTOR ASSORTMENTS

Little Devil® composition and Type 995 axial-lead molded vitreous enamel resistor kits are supplied with and packed in five-drawer cabinets at no extra cost. Each drawer has eight individually labeled compartments; tops and bottoms of cabinets are dovetailed for secure, easy stacking. Cabinet size, 9" w. x 5¼" d. x 4¾" h.

LITTLE DEVIL® KITS

±10% TOL. INDUSTRIAL ASSORTMENTS

Ohmite No.	Watts	Range, Ohms	No. of Values	No. of Resistors	No. of Cabinets	Net Each
CAB-25	¼	2.7–22 megs	80	1000	2	$156.27
CAB-26	½	2.7–22 megs	80	1000	2	164.43
CAB-27	1	2.7–22 megs	80	600	2	157.35

±5% TOL. INDUSTRIAL ASSORTMENTS

Ohmite No.	Watts	Range, Ohms	No. of Values	No. of Resistors	No. of Cabinets	Net Each
CAB-21	⅛	10–1 meg	80	500	2	$221.48
CAB-45	⅛	2.7–22 megs	160	1000	4	421.85
CAB-46	¼	2.7–22 megs	160	1500	4	357.21
CAB-47	½	2.7–22 megs	160	1500	4	399.74
CAB-48	1	2.7–22 megs	160	900	4	336.80

±10% TOL. RADIO/TV SERVICE ASSORTMENTS

Ohmite No.	Watts	Range, Ohms	No. of Values	No. of Resistors	No. of Cabinets	Net Each
CAB-4	¼	47–10 megs	37	150	1	$35.55
CAB-10	½	10–10 megs	40	150	1	35.73
CAB-2	1	10–10 megs	40	125	1	45.85
CAB-3	2	10–10 megs	40	125	1	88.45

TYPE 955 KITS

±5% TOL. INDUSTRIAL ASSORTMENTS

Ohmite No.	Watts	Range, Ohms	No. of Values	No. of Resistors	No. of Cabinets	Net Each
CAB-91	1½	1–3K	40	167	1	$151.23
CAB-93	3¼	1–10K	71	325	2	281.83
CAB-95	5	1–25K	75	355	2	329.94
CAB-99	11	1–50K	40	185	1	192.47

OHMITE® Resistors

VITREOUS ENAMELED RESISTORS

Dividohm® Adjustable Type: Vitreous enameled on ceramic cores with narrow strip of the wire-turns forming a contact surface for the embossed contact of a screwdriver—adjustable lug. A patented percentage of the resistance scale is stamped on the units to make it easy to set the lug at the desired value. **Fixed Resistors:** Lug type, wire-wound on ceramic cores. Wattage ratings are for use in free air.

STOCK VALUE ORDERING NUMBERS

Ohms	Dividohm Adjustable Resistor Type 210 12-Watt	25-Watt	50-Watt	75-Watt	100-Watt	175-Watt	225-Watt	Fixed Resistor Type 270 25-Watt	50-Watt	100-Watt	175-Watt	225-Watt
1	1001	0360	0560 A	0769 A	0956 A	1156 A	1356 A	0200J	0400J	0600C	0700C	0900C
2	1002	0360 B	0560 B	0769 B	0956 B	1156 B	1356 B	0200K	0400K	0600D	0700D	0900D
3	1003	0361	0560 C	0769 C	0956 C	1156 C	1356 C	0200L	0400L	0600E	0700E	0900E
4			0560 D	0769 D	0956 D	1156 D	1356 D	0200N	0400N	0600F	0700F	0900F
5	1004	0362	0560	0769	0956	1156	1356	0200A	0400A	0600A	0700A	0900A
7.5	1005	0362 B										
10	1006	0363	0561	0770	0957	1157	1357	0200B	0400B	0600B	0700B	0900B
15	1007	0364		0771				0200R				
20	1008	0364 B										
25	1009	0365	0562	0772	0958	1158	1358	0200C	0400C	0601	0701	0901
50	1010	0366	0563	0773	0959	1159	1359	0200D	0400D	0602	0702	0902
75	1011	0367	0564					0200E	0400E	0603	0703	0903
100	1012	0368	0565	0774	0960	1160	1360	0200F	0400F	0604	0704	0904
125										0604B	0704B	
150	1013	0369	0566					0200G	0400 G	0605	0705	0905
200	1014	0370	0567	0774 B				0200 H	0400 H			
250	1015	0371	0568	0775	0960 B	1160 B	1360 B	0201	0401	0606	0706	0906
300	1016	0371 B	0568 B	0775 B								
350	1017											
400	1018	0371 C	0568 C	0775 C								
500	1019	0372	0569	0776	0961	1161	1361	0202	0402	0607	0707	0907
600	1020											
750	1021	0373	0570	0777				0203	0403	0608	0708	0908
800	1022	0374	0571	0777 B				0204	0404			
1000	1023	0375	0572	0778	0962	1162	1362	0205	0405	0609	0709	0909
1250	1024	0375 B	0572 B	0778 B								
1500	1025	0376	0573	0779	0962 B	1162 B	1362 B	0206	0406	0610	0710	0910
2000	1026	0377	0574	0780				0207	0407	0611	0711	0911
2250	1027	0377 B	0574 B	0780 B								
2500	1028	0378	0575	0781	0963	1163	1363	0208	0408	0612	0712	0912
3000	1029	0379	0576	0781 B				0209	0409	0613	0713	0913
3500	1030	0380	0576B	0782				0210				
4000	1031	0381	0577	0782 B				0211	0410			
4500	1032	0381 B	0577 B	0782 C								
5000	1033	0382	0578	0783	0964	1164	1364	0212	0411	0614	0714	0914
6000	1034	0383	0578 B	0783 B				0213				
7000	1035	0383 B	0578 C	0783 C								
7500	1036	0384	0579	0784				0214	0412	0615	0715	0915
8000	1037	0384 B	0580	0784 B					0413			
8500	1038											
9000	1039	0384 C	0580 B	0784 C								
10K	1040	0385	0581	0785	0965	1165	1365	0215	0414	0616	0716	0916
12K		0386	0582	0785 B				0216	0415			
15K		0387	0583	0786	0966	1166	1366	0217	0416	0617	0717	0917
20K		0388	0584	0787	0967	1167	1367	0218	0417	0618	0718	0918
25K		0389	0585	0788	0968	1168	1368	0219	0418	0619	0719	0919
30K			0586	0789	0969	1169	1369	0220		0620	0720	0920
35K				0790				0221	0419			
40K			0587	0791	0970	1170	1370	0222		0621	0721	0921
45K				0792								
50K			0588	0793	0971	1171	1371	0224	0420	0622	0722	0922
60K			0589	0794				0225		0623	0723	0923
70K								0226				
75K					0972	1172	1372		0421	0624	0724	0924
80K			0590	0795				0227				
100K			0591	0796	0973	1173	1373	0229	0422	0625	0725	0925

Fixed Resistor Type 270, 50 Watt Only

Ohms	No.	Ohms	No.	Ohms	No.	Ohms	No.	Ohms	No.
125K	0423	150K	0424	175K	0425	200K	0426	250K	0428

FIXED 12-WATT NO. 270-12*

Limited space prevents full listing. Write for details, stock values.

Values, Ohms	Net Each, Lots of 1-9	10-49	50-99	100-249	250-499	500 Up
.51-6.8	$1.56	$1.33	$1.09	$0.94	$0.77	$0.71
10-1K	1.09	.93	.76	.66	.54	.49
1.2K-4.7K	1.16	.98	.80	.70	.58	.51
5.6K-10K	1.31	1.10	.92	.77	.66	.58
12K-18K	1.56	1.33	1.09	.94	.77	.71
22K-39K	1.63	1.38	1.14	.97	.81	.73
47K, 51K	1.78	1.51	1.24	1.07	.89	.79

DIVIDOHM® ADJUSTABLE 12-WATT NO. 210-12*

1-7.5	$2.54	$2.16	$1.78	$1.52	$1.27	$1.16
10-1K	2.20	1.87	1.56	1.33	1.12	.98
1.25K-5K	2.28	1.95	1.59	1.37	1.16	1.03
6K-10K	2.54	2.16	1.78	1.52	1.27	1.16

FIXED 25-WATT NO. 270-25

Core, 2" x 9/16"; with No. 9 brackets. Mounting centers 2¾".

1-4	$1.80	$1.52	$1.26	$1.08	$0.90	$0.80
5-75	1.49	1.26	1.04	.89	.75	.67
100-1K	1.40	1.20	.98	.85	.71	.64
1.5K-5K	1.49	1.26	1.04	.89	.75	.67
6K-10K	1.85	1.56	1.30	1.11	.92	.83
12K-20K	1.91	1.63	1.34	1.16	.97	.86
25K-40K	2.04	1.72	1.42	1.22	1.01	.91
50K, 60K	2.46	2.09	1.72	1.47	1.23	1.11
70K, 80K	2.85	2.43	1.99	1.71	1.43	1.29
100K	3.25	2.76	2.28	1.95	1.63	1.39

DIVIDOHM ADJUSTABLE 25-WATT NO. 210-25

Core, 2" x 9/16"; with No. 9 brackets. Mounting centers, 2¾".

1-1K	$2.43	$2.07	$1.70	$1.44	$1.21	$1.10
1.25K-5K	2.54	2.16	1.78	1.52	1.27	1.16
6K-10K	2.64	2.25	1.84	1.58	1.33	1.19
12K-20K	2.79	2.39	1.96	1.67	1.40	1.26
25K	3.01	2.56	2.11	1.81	1.51	1.35

*Core, 1¾" x 5/16"; with No. 5 brackets; mtg. centers, 2 3/16".

FIXED 50-WATT NO. 270-50

Core, 4" x 9/16"; with No. 9 brackets. Mounting centers, 4¾".

Values, Ohms	Net Each, Lots of 1-9	10-49	50-99	100 Up
1	$2.89	$2.45	$2.02	$1.74
2-5000	2.15	1.83	1.51	1.29
7500-10K	2.31	1.95	1.62	1.38
12K-20K	2.56	2.17	1.79	1.54
25K and 35K	2.89	2.45	2.02	1.74
50K	3.30	2.81	2.32	1.98
75K	3.72	3.17	2.61	2.23
100K	4.02	3.41	2.82	2.41
125K	4.86	4.14	3.40	2.92
150K	5.12	4.36	3.60	3.07
175K	5.36	4.57	3.74	3.21
200K	5.58	4.75	3.91	3.36
250K	6.09	5.17	4.28	3.66

ADJUSTABLE 50-WATT NO. 210-50

Core, brkt. and mtg. ctrs., same as above.

1	$3.91	$3.32	$2.74	$2.34
2-1000	3.10	2.64	2.17	1.86
1250-5000	3.19	2.72	2.21	1.92
6000-10K	3.21	2.73	2.26	1.93
12K-20K	3.34	2.85	2.34	2.01
25K-40K	3.79	3.22	2.65	2.28
50K and 60K	4.07	3.47	2.86	2.44
80K	4.57	3.91	3.21	2.75
100K	4.82	4.10	3.37	2.87

ADJUSTABLE 75-WATT NO. 210-75

Core, 6" x 9/16"; with No. 9 brackets. Mounting centers, 6¾".

1 and 2	$4.90	$4.17	$3.44	$2.95
3-5000	3.97	3.39	2.77	2.39
6000-10K	4.14	3.50	2.90	2.49
12K-20K	4.32	3.69	3.01	2.60
25K-40K	4.66	3.97	3.28	2.82
45K-60K	5.18	4.41	3.64	3.10
80K	5.71	4.85	3.98	3.42
100K	5.97	5.07	4.18	3.59

FIXED 100-WATT NO. 270-100

Core, 6½" x ¾"; with No. 12 brackets. Mounting centers, 7⅜".

1 and 2	$4.15	$3.52	$2.90	$2.49
3-10	3.59	3.04	2.51	2.15
25 and 50	3.41	2.90	2.40	2.05
75-250	3.30	2.82	2.31	1.99
500-1000	3.55	3.01	2.49	2.13
1500-5000	3.76	3.19	2.62	2.24
7500 and 10K	3.96	3.38	2.77	2.39
15K-25K	4.57	3.87	3.19	2.73
30K-50K	5.28	4.49	3.70	3.17
60K-75K	5.40	4.60	3.78	3.25
100K	5.60	4.77	3.92	3.38

ADJUSTABLE 100-WATT NO. 210-100

Core, brkt. and mtg. ctrs., same as above.

1 and 2	$5.85	$4.98	$4.10	$3.52
3-50	5.49	4.68	3.83	3.30
100-250	4.46	3.79	3.11	2.68
500-1000	4.52	3.83	3.17	2.73
1500-5000	4.57	3.89	3.21	2.76
10K	4.87	4.13	3.39	2.91
15K-25K	5.10	4.32	3.57	3.06
30K-50K	5.53	4.71	3.86	3.32
75K	6.02	5.13	4.22	3.62
100K	6.16	5.24	4.31	3.71

ADJUSTABLE TYPE 210*

Value, Ohms	175 Watt, Net Ea., Lots of 1-9	10-49	50-99	100 Up	225 Watt, Net Ea., Lots of 1-9	10-49	50-99	100 Up
1-2	$9.66	$8.22	$6.77	$5.80	$12.27	$10.43	$8.58	$7.36
3-10	9.19	7.81	6.43	5.52	11.21	9.52	7.83	6.73
25-50	8.53	7.25	5.97	5.13	9.78	8.31	6.86	5.86
100-250	7.40	6.31	5.19	4.45	8.36	7.12	5.85	5.01
500-1K	6.88	5.84	4.80	4.13	8.01	6.81	5.61	4.79
1.5K-5K	6.63	5.64	4.64	3.99	7.59	6.44	5.32	4.54
10K	6.53	5.56	4.56	3.92	7.70	6.55	5.39	4.62
15K, 25K	7.00	5.96	4.90	4.21	7.88	6.71	5.52	4.73
30K-50K	7.22	6.13	5.04	4.32	8.01	6.81	5.61	4.79
75K	7.29	6.20	5.11	4.39	8.43	7.16	5.90	5.04
100K	7.82	6.64	5.48	4.70	8.96	7.62	6.27	5.37

FIXED TYPE 270*

1-2	$6.94	$5.91	$4.86	$4.18	$8.58	$7.29	$6.01	$5.14
3-10	5.79	4.92	4.06	3.47	6.52	5.54	4.58	3.92
25-50	5.40	4.59	3.77	3.23	6.40	5.45	4.48	3.85
75-250	5.15	4.38	3.63	3.09	6.33	5.39	4.42	3.82
500-1K	5.09	4.33	3.55	3.05	6.20	5.27	4.35	3.73
1.5K-5K	5.03	4.28	3.52	3.01	6.02	5.12	4.21	3.60
7.5K-10K	5.23	4.43	3.66	3.14	5.76	4.90	4.02	3.45
15K, 25K	5.47	4.64	3.83	3.28	6.06	5.16	4.25	3.65
30K-50K	5.71	4.86	3.99	3.42	6.52	5.54	4.58	3.92
60K, 75K	5.84	4.97	4.09	3.50	7.05	6.00	4.93	4.22
100K	5.96	5.07	4.18	3.56	7.36	6.25	5.15	4.41

*175 Watt: Core, 8½" x 1⅛"; No. 18 brkts; mtg. ctrs., 9⅜".
225 Watt: Core, 10½" x 1⅛"; No. 18 brkts; mtg. ctrs., 11⅛".

OHMITE Series 995 Resistors

SERIES 995 MOLDED AXIAL LEAD VITREOUS ENAMELED RESISTORS

OHMITE
995-1A

Molded wire-wound vitreous enamel resistors with 1000 VAC insulation rating meet requirements of MIL-R-26 for "insulated" resistors. Also available to MIL-R-26, Styles RW67, RW68 and RW69; resistance range and prices on request. Withstand very high temperatures, high humidity and immersion in salt solution; high overload capability. Can be mounted on component clips. **Tolerance:** ±5%. **Size:** 1.5-watt, 0.422" lg. x 0.125" dia.; 2¼-watt, 0.375" lg. x 0.188" dia.; 3¼-watt, 0.547" lg. x 0.203" dia.; 5-watt, 0.938" lg. x 0.203" dia.; 11-watt, 1.781" lg. x 0.312" dia. Wire leads 1½" lg., #20 AWG except 1-watt, #24 AWG.

STYLE 995-1A 1.5-WATT AND STYLE 995-2A 2¼-WATT

Ohms	Stock Number		Ohms	Stock Number	
	1.5-Watt	2¼-Watt		1.5-Watt	2¼-Watt
1.0	4030	3860	75	4087	3918
1.1	4031	3861	82	4089	3920
1.2	4032	3862	91	4091	3922
1.3	4033	3863	100	4092	3923
1.5	4034	3864	110	4093	3924
1.6	4035	3865	120	4094	3925
1.8	4036	3866	130	4095	3926
2.0	4037	3867	150	4096	3927
2.2	4038	3868	160	4097	3928
2.4	4039	3869	180	4098	3929
2.7	4041	3871	200	4099	3930
3.0	4042	3872	220	4100	3931
3.3	4043	3873	240	4101	3932
3.6	4044	3874	250	4102	3933
3.9	4045	3875	270	4103	3934
4.0	4046	3876	300	4104	3935
4.3	4047	3877	330	4105	3936
4.7	4048	3878	350	4105A	3937
5.0	4049	3879	360	4106	3938
5.1	4050	3880	390	4107	3939
5.6	4051	3881	400	4108	3940
6.2	4053	3883	430	4109	3941
6.8	4054	3884	450	4109A	3942
7.5	4056	3886	470	4110	3943
8.2	4058	3888	500	4111	3944
9.1	4060	3890	510	4112	3945
10	4061	3891	560	4113	3946
11	4062	3892	600	4114	3947
12	4063	3893	620	4115	3948
13	4064	3894	680	4116	3949
15	4065	3895	700	4117	3950
16	4066	3896	750	4118	3951
18	4067	3897	800	4119	3952
20	4068	3898	820	4120	3953
22	4069	3899	900	4121	3954
24	4070	3900	910	4122	3955
25	4071	3901	1000	4123	3956
27	4072	3902	1100	4124	3957
30	4073	3903	1200	4125	3958
33	4074	3904	1300	4126	3959
35	4074A	3905	1400	4126A	3960
36	4075	3906	1500	4127	3961
39	4076	3907	1600	4128	3962
40	4077	3908	1800	4129	3963
43	4078	3909	2000	4130	3964
47	4079	3910	2200	4131	3965
50	4080	3911	2400	4132	3966
51	4081	3912	2500	4133	3967
56	4082	3913	2700	4134	3968
62	4084	3915	3000	4135	3969
68	4085	3916			

STYLE 995-10A 11-WATT

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
1.0	4730	27	4772	470	4810	5600	4844
1.1	4731	30	4773	500	4811	6000	4845
1.2	4732	33	4774	510	4812	6200	4846
1.3	4733	35	4774A	560	4813	6800	4847
1.5	4734	36	4775	600	4814	7000	4848
1.6	4735	39	4776	620	4815	7500	4849
1.8	4736	40	4777	680	4816	8000	4850
2.0	4737	43	4778	700	4817	8200	4851
2.2	4738	47	4779	750	4818	9000	4852
2.4	4739	50	4780	800	4819	9100	4853
2.7	4741	51	4781	820	4820	10,000	4854
3.0	4742	56	4782	900	4821	11,000	4855
3.3	4743	62	4784	910	4822	12,000	4856
3.6	4744	68	4785	1000	4823	13,000	4857
3.9	4745	75	4787	1100	4824	14,000	4857B
4.0	4746	82	4789	1200	4825	15,000	4858
4.3	4747	91	4791	1300	4826	16,000	4859A
4.7	4748	100	4792	1400	4826A	17,000	4859C
5.0	4749	110	4793	1500	4827	18,000	4860
5.1	4750	120	4794	1600	4828	20,000	4861
5.6	4751	130	4795	1800	4829	22,000	4862
6.2	4753	150	4796	2000	4830	24,000	4863
6.8	4754	160	4797	2200	4831	25,000	4864
7.5	4756	180	4798	2400	4832	27,000	4865
8.2	4758	200	4799	2500	4833	30,000	4866
9.1	4760	220	4800	2700	4834	33,000	4867
10	4761	240	4801	3000	4835	35,000	4867A
11	4762	250	4802	3300	4836	36,000	4868
12	4763	270	4803	3500	4836A	39,000	4869
13	4764	300	4804	3600	4837	40,000	4870
15	4765	330	4805	3900	4838	43,000	4871
16	4766	350	4805A	4000	4839	45,000	4871A
18	4767	360	4806	4300	4840	47,000	4872
20	4768	390	4807	4500	4840A	50,000	4873
22	4769	400	4808	4700	4841	51,000	4874
24	4770	430	4809	5000	4842		
25	4771	450	4809A	5100	4843		

STYLE 995-3A 3¼-WATT AND STYLE 995-5B 5-WATT

Ohms	Stock Number		Ohms	Stock Number	
	3¼-Watt	5-Watt		3¼-Watt	5-Watt
1.0	4330	4530	330	4405	4605
1.1	4331	4531	350	4405A	4605A
1.2	4332	4532	360	4406	4606
1.3	4333	4533	390	4407	4607
1.5	4334	4534	400	4408	4608
1.6	4335	4535	430	4409	4609
1.8	4336	4536	450	4409A	4609A
2.0	4337	4537	470	4410	4610
2.2	4338	4538	500	4411	4611
2.4	4339	4539	510	4412	4612
2.7	4341	4541	560	4413	4613
3.0	4342	4542	600	4414	4614
3.3	4343	4543	620	4415	4615
3.6	4344	4544	680	4416	4616
3.9	4345	4545	700	4417	4617
4.0	4346	4546	750	4418	4618
4.3	4347	4547	800	4419	4619
4.7	4348	4548	820	4420	4620
5.0	4349	4549	900	4421	4621
5.1	4350	4550	910	4422	4622
5.6	4351	4551	1000	4423	4623
6.2	4353	4553	1100	4424	4624
6.8	4354	4554	1200	4425	4625
7.5	4356	4556	1300	4426	4626
8.2	4358	4558	1400	4426A	4626A
9.1	4360	4560	1500	4427	4627
10	4361	4561	1600	4428	4628
11	4362	4562	1800	4429	4629
12	4363	4563	2000	4430	4630
13	4364	4564	2200	4431	4631
15	4365	4565	2400	4432	4632
16	4366	4566	2500	4433	4633
18	4367	4567	2700	4434	4634
20	4368	4568	3000	4435	4635
22	4369	4569	3300	4436	4636
24	4370	4570	3500	4436A	4636A
25	4371	4571	3600	4437	4637
27	4372	4572	3900	4438	4638
30	4373	4573	4000	4439	4639
33	4374	4574	4300	4440	4640
35	4374A	4574A	4500	4440A	4640A
36	4375	4575	4700	4441	4641
39	4376	4576	5000	4442	4642
40	4377	4577	5100	4443	4643
43	4378	4578	5600	4444	4644
47	4379	4579	6000	4445	4645
50	4380	4580	6200	4446	4646
51	4381	4581	6800	4447	4647
56	4382	4582	7000	4448	4648
62	4384	4584	7500	4449	4649
68	4385	4585	8000	4450	4650
75	4387	4587	8200	4451	4651
82	4389	4589	9000	4452	4652
91	4391	4591	9100	4453	4653
100	4392	4592	10,000	4454	4654
110	4393	4593	11,000	....	4655
120	4394	4594	12,000	....	4656
130	4395	4595	13,000	....	4657
150	4396	4596	14,000	....	4657A
160	4397	4597	15,000	....	4658
180	4398	4598	16,000	....	4659
200	4399	4599	17,000	....	4659B
220	4400	4600	18,000	....	4660
240	4401	4601	20,000	....	4661
250	4402	4602	22,000	....	4662
270	4403	4603	24,000	....	4663
300	4404	4604	25,000	....	4664

PRICING

Values, Ohms*	Net Each, Lots of					
	1-9	10-49	50-99	100-249	250-499	500 Up
Style 995-1A 1.5-Watt						
1.0–9.1	$1.19	$1.01	$0.84	$0.71	$0.61	$0.53
10–1K	1.06	.90	.73	.64	.53	.47
1.1K–3K	1.09	.93	.76	.66	.55	.48
Style 995-2A 2¼-Watt						
1.0–9.1	$1.11	$0.95	$0.78	$0.67	$0.57	$0.49
10–1K	.99	.83	.69	.60	.48	.44
1.1K–3K	1.04	.88	.72	.63	.52	.46
Style 995-3A 3¼-Watt						
1.0–9.1	$1.01	$0.85	$0.70	$0.61	$0.50	$0.45
10–1K	.89	.76	.63	.53	.44	.40
1.1K–5K	.95	.81	.67	.58	.47	.43
5.1K–10K	.98	.83	.68	.59	.48	.44
Style 995-5B 5-Watt						
1.0–9.1	$1.08	$0.92	$0.76	$0.65	$0.55	$0.48
10–1K	.95	.81	.67	.58	.47	.43
1.1K–5K	.98	.83	.68	.59	.48	.44
5.1K–10K	1.08	.92	.76	.65	.55	.48
11K–20K	1.16	1.00	.82	.70	.59	.53
22K–25K	1.36	1.15	.95	.82	.68	.62
Style 995-10A 11-Watt						
1.0–9.1	$1.36	$1.15	$0.95	$0.82	$0.68	$0.61
10–1K	1.23	1.05	.87	.73	.62	.55
1.1K–5K	1.30	1.10	.91	.77	.65	.58
5.1K–10K	1.43	1.22	1.00	.87	.71	.65
11K–20K	1.57	1.33	1.10	.94	.78	.70
22K–40K	1.65	1.39	1.15	.99	.82	.73
43K–51K	1.81	1.53	1.27	1.09	.91	.81

*Restricted to those values shown in the table of stock numbers.

289 Flameproof Metal Resistors in Four Drawers

Stock No. 199125

Get organized with RCA's new flameproof metal resistor kit. 289 of our most popular resistors in a neat cabinet designed especially for resistors.

Sturdy nonmetallic cabinet, single-piece molded drawers with 60 compartments. Preprinted labels, mounting feet included. Stackable. Size: 17⅜ × 5½ × 12¼.

COMBINE SAFETY AND CONVENIENCE WITH RCA FLAMEPROOF METAL RESISTORS

- Won't flame or short under the most severe overloads.
- For use in original equipment or as general purpose replacements.
- Can replace composition, carbon film, wirewound and other metal types.
- Cover majority of replacement needs in TV, video and industrial servicing.
- 780 values from 0.1 ohm to 22 megohms.
- Tolerance ratings of ±2% on most values.
- Ratings of ¼, ½, 1 and 2 watts in color-coded blister packages.

Rating (Watts)	Resistance Values (Ohms)	Tolerance	Package Quantity
¼	1 to 9.1	±2%	2
	10 to 300K	±2%	4
	330K to 22M	±2%	2
½	0.10 to 0.18	±10%	2
	0.20 to 0.91	±5%	2
	1.0 to 1M	±2%	6
	1.1M to 22M	±2%	2
1	0.10 to 0.18	±10%	2
	0.20 to 2.7	±5%	2
	3.0 to 9.1	±2%	2
	10 to 1M	±2%	4
	1.1M to 22M	±2%	1
2	0.10 to 0.18	±10%	2
	0.20 to 2.7	±5%	2
	3.0 to 1.5M	±2%	2
	1.6M to 22M	±2%	1

KEY TO RCA STOCK NUMBERS FOR FLAMEPROOF METAL RESISTORS

Wattage

829 = ¼W
830 = ½W
831 = 1W
832 = 2W

Multiplier

829010

Value: First two digits

Ex: 829010 = 10 ohms, ¼W
831218 = 1800 ohms, 1W

DECIMAL FOR VALUES FROM 1 TO 10 OHMS

830A68

Ex: 830A68 = 6.8 ohms, ½W
829A10 = 1.0 ohms, ¼W

DECIMAL FOR VALUES BELOW 1 OHM

831B36

Ex: 831B36 = 0.36 ohm, 1W
832B91 = 0.91 ohm, 2W

RCA Flameproof Metal Resistors

Value, Ohms	¼ Watt Stock Number	½ Watt Stock Number	1 Watt Stock Number	2 Watts Stock Number
0.10	....	830B10	831B10	832B10
0.11	....	830B11	831B11	832B11
0.12	....	830B12	831B12	832B12
0.13	....	830B13	831B13	832B13
0.15	....	830B15	831B15	832B15
0.16	....	830B16	831B16	832B16
0.18	....	830B18	831B18	832B18
0.20	....	830B20	831B20	832B20
0.22	....	830B22	831B22	832B22
0.24	....	830B24	831B24	832B24
0.27	....	830B27	831B27	832B27
0.30	....	830B30	831B30	832B30
0.33	....	830B33	831B33	832B33
0.36	....	830B36	831B36	832B36
0.39	....	830B39	831B39	832B39
0.43	....	830B43	831B43	832B43
0.47	....	830B47	831B47	832B47
0.51	....	830B51	831B51	832B51
0.56	....	830B56	831B56	832B56
0.62	....	830B62	831B62	832B62
0.68	....	830B68	831B68	832B68
0.75	....	830B75	831B75	832B75
0.82	....	830B82	831B82	832B82
0.91	....	830B91	831B91	832B91
1.0	829A10	830A10	831A10	832A10
1.1	829A11	830A11	831A11	832A11
1.2	829A12	830A12	831A12	832A12
1.3	829A13	830A13	831A13	832A13
1.5	829A15	830A15	831A15	832A15
1.6	829A16	830A16	831A16	832A16
1.8	829A18	830A18	831A18	832A18
2.0	829A20	830A20	831A20	832A20
2.2	829A22	830A22	831A22	832A22
2.4	829A24	830A24	831A24	832A24
2.7	829A27	830A27	831A27	832A27
3.0	829A30	830A30	831A30	832A30
3.3	829A33	830A33	831A33	832A33
3.6	829A36	830A36	831A36	832A36
3.9	829A39	830A39	831A39	832A39
4.3	829A43	830A43	831A43	832A43
4.7	829A47	830A47	831A47	832A47
5.1	829A51	830A51	831A51	832A51
5.6	829A56	830A56	831A56	832A56
6.2	829A62	830A62	831A62	832A62
6.8	829A68	830A68	831A68	832A68
7.5	829A75	830A75	831A75	832A75
8.2	829A82	830A82	831A82	832A82
9.1	829A91	830A91	831A91	832A91
10	829010	830010	831010	832010
11	829011	830011	831011	832011
12	829012	830012	831012	832012
13	829013	830013	831013	832013
15	829015	830015	831015	832015
16	829016	830016	831016	832016
18	829018	830018	831018	832018
20	829020	830020	831020	832020
22	829022	830022	831022	832022
24	829024	830024	831024	832024
27	829027	830027	831027	832027
30	829030	830030	831030	832030
33	829033	830033	831033	832033
36	829036	830036	831036	832036
39	829039	830039	831039	832039
43	829043	830043	831043	832043
47	829047	830047	831047	832047
51	829051	830051	831051	832051
56	829056	830056	831056	832056
62	829062	830062	831062	832062
68	829068	830068	831068	832068
75	829075	830075	831075	832075
82	829082	830082	831082	832082
91	829091	830091	831091	832091
100	829110	830110	831110	832110
110	829111	830111	831111	832111
120	829112	830112	831112	832112
130	829113	830113	831113	832113
150	829115	830115	831115	832115
160	829116	830116	831116	832116
180	829118	830118	831118	832118
200	829120	830120	831120	832120
220	829122	830122	831122	832122
240	829124	830124	831124	832124
270	829127	830127	831127	832127
300	829130	830130	831130	832130
330	829133	830133	831133	832133
360	829136	830136	831136	832136
390	829139	830139	831139	832139
430	829143	830143	831143	832143
470	829147	830147	831147	832147
510	829151	830151	831151	832151
560	829156	830156	831156	832156
620	829162	830162	831162	832162
680	829168	830168	831168	832168
750	829175	830175	831175	832175
820	829182	830182	831182	832182
910	829191	830191	831191	832191
1K	829210	830210	831210	832210
1.1K	829211	830211	831211	832211
1.2K	829212	830212	831212	832212
1.3K	829213	830213	831213	832213
1.5K	829215	830215	831215	832215
1.6K	829216	830216	831216	832216
1.8K	829218	830218	831218	832218
2K	829220	830220	831220	832220
2.2K	829222	830222	831222	832222
2.4K	829224	830224	831224	832224
2.7K	829227	830227	831227	832227
3K	829230	830230	831230	832230
3.3K	829233	830233	831233	832233
3.6K	829236	830236	831236	832236
3.9K	829239	830239	831239	832239
4.3K	829243	830243	831243	832243
4.7K	829247	830247	831247	832247
5.1K	829251	830251	831251	832251
5.6K	829256	830256	831256	832256
6.2K	829262	830262	831262	832262
6.8K	829268	830268	831268	832268
7.5K	829275	830275	831275	832275
8.2K	829282	830282	831282	832282
9.1K	829291	830291	831291	832291
10K	829310	830310	831310	832310
11K	829311	830311	831311	832311
12K	829312	830312	831312	832312
13K	829313	830313	831313	832313
15K	829315	830315	831315	832315
16K	829316	830316	831316	832316
18K	829318	830318	831318	832318
20K	829320	830320	831320	832320
22K	829322	830322	831322	832322
24K	829324	830324	831324	832324
27K	829327	830327	831327	832327
30K	829330	830330	831330	832330
33K	829333	830333	831333	832333
36K	829336	830336	831336	832336
39K	829339	830339	831339	832339
43K	829343	830343	831343	832343
47K	829347	830347	831347	832347
51K	829351	830351	831351	832351
56K	829356	830356	831356	832356
62K	829362	830362	831362	832362
68K	829368	830368	831368	832368
75K	829375	830375	831375	832375
82K	829382	830382	831382	832382
91K	829391	830391	831391	832391
100K	829410	830410	831410	832410
110K	829411	830411	831411	832411
120K	829412	830412	831412	832412
130K	829413	830413	831413	832413
150K	829415	830415	831415	832415
160K	829416	830416	831416	832416
180K	829418	830418	831418	832418
200K	829420	830420	831420	832420
220K	829422	830422	831422	832422
240K	829424	830424	831424	832424
270K	829427	830427	831427	832427
300K	829430	830430	831430	832430
330K	829433	830433	831433	832433
360K	829436	830436	831436	832436
390K	829439	830439	831439	832439
430K	829443	830443	831443	832443
470K	829447	830447	831447	832447
510K	829451	830451	831451	832451
560K	829456	830456	831456	832456
620K	829462	830462	831462	832462
680K	829468	830468	831468	832468
750K	829475	830475	831475	832475
820K	829482	830482	831482	832482
910K	829491	830491	831491	832491
1M	829510	830510	831510	832510
1.1M	829511	830511	831511	832511
1.2M	829512	830512	831512	832512
1.3M	829513	830513	831513	832513
1.5M	829515	830515	831515	832515
1.6M	829516	830516	831516	832516
1.8M	829518	830518	831518	832518
2.0M	829520	830520	831520	832520
2.2M	829522	830522	831522	832522
2.4M	829524	830524	831524	832524
2.7M	829527	830527	831527	832527
3.0M	829530	830530	831530	832530
3.3M	829533	830533	831533	832533
3.6M	829536	830536	831536	832536
3.9M	829539	830539	831539	832539
4.3M	829543	830543	831543	832543
4.7M	829547	830547	831547	832547
5.1M	829551	830551	831551	832551
5.6M	829556	830556	831556	832556
6.2M	829562	830562	831562	832562
6.8M	829568	830568	831568	832568
7.5M	829575	830575	831575	832575
8.2M	829582	830582	831582	832582
9.1M	829591	830591	831591	832591
10M	829610	830610	831610	832610
11M	829611	830611	831611	832611
12M	829612	830612	831612	832612
13M	829613	830613	831613	832613
15M	829615	830615	831615	832615
16M	829616	830616	831616	832616
18M	829618	830618	831618	832618
20M	829620	830620	831620	832620
22M	829622	830622	831622	832622

Price per Package for Stock Numbers in boxed area—$0.68; all others, $0.84.

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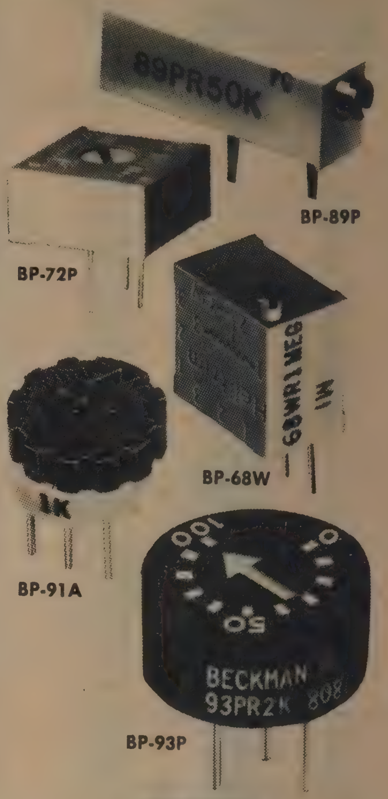
BECKMAN Components

CERMET TRIMMERS

Cermet trimmers from Beckman enjoy a wide variety of industrial and general purpose applications. Consistent high performance is assured through the use of Beckman's own proprietary cermet films. All models provide voltage adjustability of better than ±.05% and have essentially infinite resolution. Maximum unit temperature coefficient is ±100 ppm/°C. All units are sealed for board washing and offer excellent performance under environmental extremes.

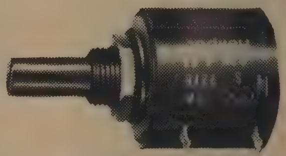
Beckman Number	Number of Turns	Resistance Values	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
BP-68W	18	1K, 5K, 10K, 20K, 50K, 100K	$2.79	$2.65	$2.51	$2.40	$2.26
BP-72P	1	1K, 5K, 10K, 20K, 50K, 100K	1.49	1.42	1.34	1.28	1.21
BP-91A	1	1K, 5K, 10K, 20K, 50K, 100K	1.09	.99	.94	.89	.85
BP-93P	1	1K, 5K, 10K, 20K, 50K, 100K	2.99	2.84	2.69	2.57	2.42
BP-89P	15	1K, 5K, 10K, 20K, 50K, 100K	1.81	1.72	1.63	1.56	1.47
BP-89B	Panel mount adapter for BP-89P		.79	.73	.70	.66	.62



PRECISION POTENTIOMETERS

Beckman's 10-turn, 7/8" diameter wirewound Helipot® precision potentiometers offer superior setting stability, and the separate contact position guide increases coil life and helps insure long-term performance stability. Units have guaranteed resistance tolerances of ±5% and shaft lives of one-half million to one million revolutions.

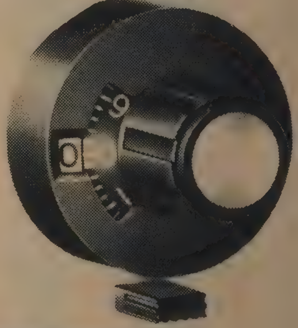
Beckman Number	Resistance Values	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
BP-7276	1K, 10K, 20K	$10.25	$9.74	$9.22	$8.81	$8.30
BP-7276	50K, 100K	10.95	10.40	9.85	9.42	8.87
BP-7286	1K, 10K, 20K	12.30	11.68	11.07	10.58	9.96
BP-7286	50K, 100K	12.95	12.30	11.65	11.14	10.49



TURNS-COUNTING DIALS

These turns-counting dials were designed for use with Helipot® precision potentiometers. The 10-turn model has a black housing and knob with white numerals; the 15-turn model has a satin chrome finish and black numerals. Both models have a positive locking mechanism to prevent accidental setting changes.

Beckman Number	No. of Turns	O.D.	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
BP-2606	15	7/8"	$13.95	$13.25	$12.55	$12.00	$11.30
BP-2626	10	1"	9.75	9.26	8.77	8.38	7.90

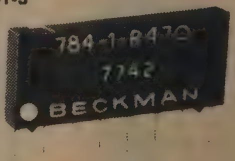


RESISTOR NETWORKS

Resnet™ resistor networks are laser trimmed and 100% tested to assure close tolerances and consistent quality. The thick-film line offers resistor tolerances of ±2% or 2 ohms (whichever is greater) and resistance temperature coefficient tracking of ±50 parts per million per °C. Choices include 8 isolated (No. BP-661-3) or 15 common resistors of the same value (No. BP-661-1) in 16-pin DIPs or 7 common resistors of the same value (No. BP-784-1) in an 8-pin SIP. The thin-film line offers 5 parts per million per °C tracking and 1% or better resistor tolerance. Available as 7 metal-film resistors of equal value (No. BP-699-3F) in a 14-pin DIP.

Beckman Number	Resistance Values	Net Each, Lots of 1-4	5-9	10-24	25-49	50-99
BP-661-1	330, 470, 1K, 2, 2K 4.7K, 10K, 22K, 47K 100K	$1.96	$1.86	$1.76	$1.69	$.59
BP-661-3	1K, 417K, 10K, 47K, 100K	1.92	1.82	1.73	1.65	1.56
BP-699-3	1K, 10K, 100K	3.68	3.50	3.31	3.16	2.98
BP-784-1	330, 1K, 10K, 100K	1.47	1.40	1.32	1.26	1.19

BP-661-3

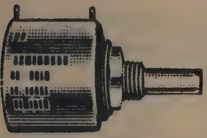


BP-784-1

SPACE DOES NOT ALLOW FOR COMPLETE LISTING.
CONTACT US FOR ADDITIONAL INFORMATION

Clarostat Potentiometers, Decades and Dials

SMALL, 10-TURN 2-WATT POTENTIOMETER ONLY ¾" IN BODY LENGTH



Series 73JA has brought the ten-turn potentiometer down in size, down in price and down in wear-outs. Only ¾" body length, and a rotational life of 500,000 cycles. **Resistance Range:** 100-100K ohms. **Resistance Tolerance:** ±5% **Power Rating:** At 20° C, 2 watts. **Operating Temperature Range:** −55°C to +105° C. **Temperature Coefficient:** ±20 PPM/° C max. **End Resistance:** 0.25% or 1 ohm. **Noise During Adjustment (ENR):** 100 ohms, maximum. **Insulation Resistance:** 1000 megohms at 500 VDC. **Dielectric Strength:** 1000 V rms. **Actual Electrical Travel:** 3600° + 10° −0°. **Linearity:** 0.25%, independent. **Mechanical Torque:** 0.5 oz.-in. maximum. **Stop Strength:** 75 oz.-in. minimum. To order, add resistance required to Clarostat No., example 73JA-100. See stock value, ohms, below.

73JA Resis. Range	Net Each, Lots of					
	1-9	10-24	25-49	50-99	100-249	250 Up
100-25K	$8.90	$7.40	$6.90	$6.45	$6.05	$5.65
50K	12.25	10.15	9.45	8.85	8.30	7.75
100K	12.90	10.70	9.95	9.30	8.75	8.15

Stock Value, Ohms	Nominal Resolution	Stock Value, Ohms	Nominal Resolution
100	.055%	5000	.020%
200	.037%	10K	.017%
500	.030%	20K	.015%
1000	.025%	50K	.011%
2000	.021%	100K	.009%

SERIES 62JA TEN-TURN POTENTIOMETER

Opens new application areas for the advantages of multi-turn potentiometer design, including far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Resistance tolerance, ±5%. Functional output, linear. Absolute linearity, ±0.25%. Power dissipation at 25° C, 2 watts, derated to zero at 85° C. Dielectric strength, 1000 VAC. Electrical and mechanical rotation, 3600°, +10, −0. Maximum torque, 3 oz.-in. Stop strength, 50 oz.-in. Insulation resistance, 1000 megohms. Life, 100,000 shaft revolutions. Max. rotation speed, 60 rpm. Size, ⅞" dia. × 2½" overall.

Net Each, Lots of 1-9	$11.72
Net Each, Lots of 10-99	10.15
Net Each, Lots of 100-Up	9.37

Stock Value. Ohms	Resolutions 100/Total Turns	Stock Value, Ohms	Resolutions 100/Total Turns
100*	.062%	5,000	.026%
200*	.048%	10,000	.024%
250*	.038%	20,000	.019%
500	.036%	25,000	.017%
1,000	.030%	30,000	.016%
2,000	.023%	50,000	.013%
2,500	.022%	100,000	.012%

*Absolute linearity, ±0.5%.

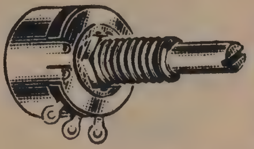
MODEL 250 RACK MOUNTED DECADE

POWER RESISTANCE DECADE
CLAROSTAT

Same as Model 240C except for rack mounting. Fits in standard 19" relay rack. **Size:** 19" w. × 13¼" d. × 7" h. Weight, 18½ lbs. **Model 250 Power Resistor Decade Box—Net Each**..........$693.00

SERIES 381 1-WATT

⅝" DIA. POTENTIOMETERS



Clarostat "Quiet One" series, a new, low cost potentiometer with characteristics exceeding those of higher priced models. Features reliable, homogeneous, strain-free resistance element with 1% dynamic noise and 5% independent linearity. Mechanical parts precision machine-finished for smooth operation, long life. Manufactured to MIL-R-94 specifications. **Resistance Tolerance:** Linear, up to 500K ohms ±10%; above 500K ohms, ±20%. **Power Rating:** 1 watt max. continuous power rating for linear taper, but voltage not to exceed rating. Full rating at 70° C, derated linearly to zero watts at 120° C. Derate all non-linear tapers by multiplying wattage rating by 0.5. **Mechanical and Rotation:** 300° ±5° with switch. **Dynamic Noise:** Linear single controls maximum initial noise level 1% of total resistance. **Linearity:** ±5% independent. **Working Voltage:** 350 VDC across end terminals, power not to exceed rating. Models 381N have plain ¼" long bushing, ½" long shaft, screwdriver slotted. Models 381NS same, but equipped with attached SPST switch rated 1 amp at 125 VAC or DC. Models 381L have ⅜" shaft-locking bushing, $^1/16$" long shaft, screwdriver slotted.To order, add resistance required to Clarostat No., example: 381N-100. See Stock Values Table, below.

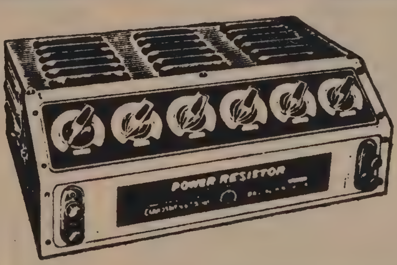
Clarostat Number	Shaft Length, Screwdriver Slotted	Bushing Length	Net Each, Lots of			
			1-9	10-49	50-99	100-249
381N	¾"	¼"	$4.15	$3.11	$2.67	$1.94
381NS	¾"	¼"	6.29	4.72	4.05	2.93
381L	$^7/16$"	⅜"	4.42	3.32	2.85	2.06

TABLE OF

STOCK VALUES

Ohms				
100	1000	10K	100K	1.0 meg
250	2500	25K	250K	2.5 megs
500	5000	50K	500K	5.0 megs

MODEL 240C PORTABLE DECADE



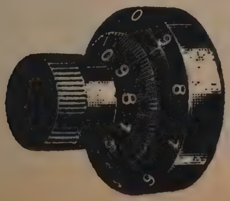
The Model 240C portable resistance decade allows the changing of resistance at a flip of a switch in a working circuit. Any ohms value can be obtained, from one ohm to 999,999 ohms, in steps of one ohm and at a maximum power rating of 225 watts, using a maximum of 1,000 volts DC or 660 volts AC. Dependable Clarostat 'Greenohm" resistors are used throughout. These are inorganic-cement-coated, wire-wound power resistors. The resistors are mounted on rigid metal supports; a baffle plate separating the resistor bank from the switch assembly protects the latter against heat. Resistance changing switches are of the type that prevents a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Pointer knobs indicate at a glance the resistance value being used.

Resistance Tolerance: ±2.0% all decades except No. 1, ±5.0%.
Max. Current: 5 amps, No. 1; 1.5 amps, No. 2; 0.5 amp, No. 3; 0.15 amp, No. 4; 0.05 amp, No. 5; 0.005 amp, No. 6.

In a heavy gauge metal case, finished in frosted gray wrinkle, with an etched black-and-aluminum front panel. Overall length, 13"; 8½" deep; 5¾" high. Weight, 11.5 lbs.

Model 240C Power Resistor Decade Box—Net..........$384.00

CLARODIALS—10-TURN CONCENTRIC SCALE DIALS

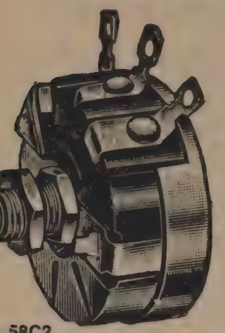


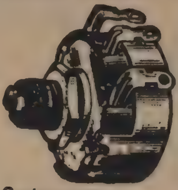
Calibrated dials designed for multi-turn potentiometers up to ten turns or other rotary devices. Requires only one inch of panel space. Knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. Therefore, accurate readings with a ratio of 1000 to one for 10 turns are provided with zero backlash and no reading error. Made of anodized aluminum. Mounting requirements: ¼" shaft and ⅜"-32 NEF-2A bushing. Model 411 is black, has no lock. Model 412 is black, has lock. Model 461 is clear, has no lock. Model 462 is clear, has lock.

Clarostat No.	Net Each, Lots of			
	1-24	25-49	50-99	100-Up
411	$8.74	$8.17	$7.82	$7.36
412	9.43	8.80	8.45	7.82
461	8.74	8.17	7.82	7.36
462	9.43	8.80	8.45	7.82

CLAROSTAT CONTROLS

"C LINE®" WIRE-WOUND INDUSTRIAL CONTROLS


Series 58C2


Series 43C2

Clarostat "C Line" controls are designed primarily for industrial applications. They feature moisture and dust-proof construction, corrosion proof finish and locking or standard bushing. Suffix C1 indicates 1⅝" round shaft beyond bushing and ⅜" long bushing with ⅜-32-NEF-2 thread. Suffix C2 indicates ⅛" screwdriver slotted shaft, ½" split locking bushing. One nickel plated hex mounting nut and internal lock washer supplied with all units. All C2 units supplied with a nickel plated machined hex locking nut. Switches, onmages not listed, tapers not listed, bushings and shaft lengths not listed, and dual combinations are also available on special order. (Prices and delivery information available on request.)

SERIES 43C1 AND 43C2
2-WATT CONTROLS

Smallest 2-watt wire-wound control available up to 50K ohms. Tolerance ±5%. Independent Linearity ±2%.

Ohms	Net Each 43C1	Net Each 43C2	Ohms	Net Each 43C1	Net Each 43C2
5	$4.16	$4.62	1000	$4.16	$4.62
10	4.16	4.62	1500	4.16	4.62
20	4.16	4.62	2000	4.16	4.62
25	4.16	4.62	2500	4.16	4.62
30	4.16	4.62	3000	4.16	4.62
40	4.16	4.62	4000	4.16	4.62
50	4.16	4.62	5000	4.16	4.62
75	4.16	4.62	7500	4.16	4.62
100	4.16	4.62	10K	4.16	4.62
150	4.16	4.62	15K	4.71	5.20
200	4.16	4.62	20K	4.71	5.20
300	4.16	4.62	25K	4.71	5.20
400	4.16	4.62	30K	5.54	6.09
500	4.16	4.62	40K	5.54	6.09
750	4.16	4.62	50K	5.54	6.09

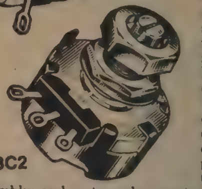
SERIES 58C1 AND 58C2
3-WATT CONTROLS

Tolerance ±5%. Linearity ±1%.

Ohms	Net Each 58C1	Net Each 58C2	Ohms	Net Each 58C1	Net Each 58C2
1	$4.16	$4.62	500	$4.16	$4.62
2	4.16	4.62	750	4.16	4.62
4	4.16	4.62	1000	4.16	4.62
6	4.16	4.62	1500	4.16	4.62
10	4.16	4.62	2000	4.16	4.62
15	4.16	4.62	2500	4.16	4.62
20	4.16	4.62	3000	4.16	4.62
25	4.16	4.62	5000	4.16	4.62
30	4.16	4.62	7500	4.16	4.62
40	4.16	4.62	10K	4.16	4.62
50	4.16	4.62	15K	4.71	5.20
60	4.16	4.62	20K	4.71	5.20
75	4.16	4.62	25K	4.71	5.20
100	4.16	4.62	30K	5.54	6.09
200	4.16	4.62	40K	5.54	6.09
300	4.16	4.62	50K	5.54	6.09
400	4.16	4.62			

2-WATT "C-LINE®" POTENTIOMETERS

53C1


53C2

Molded composition element type totally sealed against moisture. High quality resistance device has high stability under extreme conditions. Use for critical applications such as test equipment, military, computers, servo mechanisms, etc. One-piece wiper assembly; carbon to carbon contact for low noise level; stainless steel shaft; gold plated terminals. Electrical tolerances are ±10% for values up to 1 megohm; ±20%, 1 meg. and above. "S" taper supplied. **Size:** 1 1/16" dia. × 9/16" deep.

Clarostat Model 53C1, Taper Z—
Specify resistance value. Net Each **$3.96**

Ohms	Ohms	Ohms
50	7.5K	500K
100	10K	750K
150	15K	1 meg
250	20K	1.5 meg
350	25K	2 meg
500	35K	2.5 meg
750	50K	3 meg
1000	75K	3.5 meg
1500	100K	4 meg
2000	150K	5 meg
2500	200K	7.5 meg
3500	250K	10 meg
5000	350K	

MILITARY WIRE-WOUND AND CARBON POTENTIOMETERS

RV4LAYSA, 53C2

MIL-R-19A VARIABLE WIRE-WOUND POTENTIOMETERS

Certified for MIL-R-19A and available in common shaft lengths and values. Linear taper. **Tolerance:** ±10%. **Ratings:** RA10, one watt. RA20, two watts. RA30, four watts. **Bushing and Shaft:** Specify by letters (i.e. RA20**NASD**351A). RA10: NASD, ⅞" lg. × ¼" dia.; NASL, 5/16" lg. × ¼" dia.; LASM, 7/16" lg. × ¼" dia., lock bushing. RA10, 20: LASD, ⅞" lg. × ¼" dia., lock bushing. RA20, 30: NASA, ½" lg. × ¼" dia.; NASD, ⅞" lg. × ¼" dia.; LASB, ⅝" lg. × ¼" dia., lock bushing. All have slotted shafts.

Ohms ±10%	No. RA10()-, RA20()-, RA30()-,	Ohms ±10%	No. RA10()-, RA20()-, RA30()-,
3	3R0A*	350	351A
6	6R0A*	500	501A
8	8R0A*	750	751A
10	100A*	1000	102A
15	150A	1500	152A
20	200A*	2000	202A
25	250A	2500	252A
35	350A*	3500	352A*
50	500A	5000	502A*
75	750A	7500	752A*
100	101A	10K	103A*
150	151A	15K	153A*
200	201A	20K	203A†
250	251A	25K	253A†

*Not available in one-watt type. †Not available in one- or two-watt types.

MIL-R-94B VARIABLE 2-WATT CARBON POTENTIOMETERS

Certified for MIL-R-94B and available in common shaft lengths and values. Linear taper. **Tolerance:** ±10% unless otherwise specified. **Rating:** 2 watts. **Bushing and Shaft:** Specify by letters (example: RV4**NAYSD**101A, or 53C3-100-S): NAYSD (53C3) for standard bushing with ⅞" l. × ¼" dia. slotted shaft; LAYSA (53C2) for lock bushing and ⅝" l. × ¼" dia. slotted shaft. **Note:** Where no military number is shown, no MIL value is available; and, only the commercial version may be ordered (53C). All others are dual-marked.

Resis., Ohms ±10%	MIL No. RV4()-	Claro. No. 53C()-	Resis. Ohms ±10%	MIL No. RV4()-	Claro. No. 53C()-	Resis., Ohms ±10%	MIL No. RV4()-	Claro. No. 53C()-
50	500A	50-S	7500	752A	7500-S	500K	504A	500K-S
100	101A	100-S	10K	103A	10K-S	750K†	754B	750K-S
150	151A	150-S	15K	153A	15K-S	1 meg†	105B	1 Meg-S
250	251A	250-S	20K	....	20K-S	1.5 meg†	155B	1.5 Meg-S
350	351A	350-S	25K	253A	25K-S	2 meg†	205B	2 Meg-S
500	501A	500-S	35K	353A	35K-S	2.5 meg†	255B	2.5 Meg-S
750	751A	750-S	50K	503A	50K-S	3 meg†	....	3 Meg-S
1000	102A	1000-S	75K	753A	75K-S	3.5 meg†	355B	3.5 Meg-S
1500	152A	1500-S	100K	104A	100K-S	4 meg†	....	4 Meg-S
2000	....	2000-S	150K	154A	150K-S	5 meg†	505B	5 Meg-S
2500	252A	2500-S	200K	....	200K-S	10 meg†	....	10 Meg-S
3500	352A	3500-S	250K	254A	250K-S			
5000	502A	5000-S	350K	354A	350K-S			

MIL-R-94B HOT MOLDED ½-WATT CARBON POTENTIOMETERS

Rated 0.5 watt at 70° C, derated to zero at 120°C. Available with standard (RV6NAYSD) or locking (RV6LAYSA) bushing. Dia., ½"; 350 WVDC.

Ohms ±10%	No.* RV6()-	Ohms ±10%	No.* RV6()-	Ohms ±10%	No.* RV6()-	Ohms ±10%	No.* RV6()-
100	101A	2,500	252A	25,000	253A	250,000	254A
250	251A	5,000	502A	50,000	503A	500,000	504A
500	501A	10,000	103A	100,000	104A	1 meg	105A
1000	102A	15,000	153A	150,000	154A		

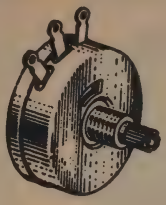
INDUSTRIAL NET PRICES

MIL or (Clarostat) Type*	Net Each, Lots of 1-9	10-24	25-49	50-99	100-249	250-Up
RV4NAYSD- or (53C3-)	$5.99	$4.19	$4.19	$3.35	$2.39	$1.68
RV4LAYSA- or (53C2-)	6.56	4.59	4.59	3.68	2.63	1.84
RV6NAYSD-	5.50	4.02	4.02	2.41	2.09	1.77
RV6LAYSA	5.50	4.27	4.27	2.58	2.22	1.88
RA20NAS( )-	5.24	3.66	3.66	2.57	2.11	1.75
RA20LAS( )-	5.24	3.79	3.79	2.70	2.27	1.85
RA30NAS( )-	5.92	4.33	4.33	3.13	2.59	2.29
RA30LASB-	5.92	4.47	4.47	3.29	2.80	2.48
RA10NAS( )-	10.00	7.56	6.50	5.51	4.79	3.73
RA10LAS( )-	10.34	7.82	6.73	5.66	4.96	3.85

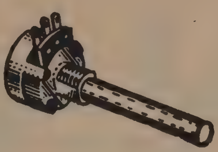
*Ordering number must show bushing and shaft desired (as described above) and appropriate suffix to indicate ohms. Example: RA20**NASD3R0A**.

MALLORY Wire Wound Controls

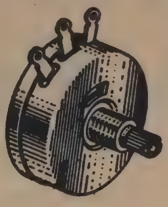
R



M



VW



MG

3 WATT TYPE R

Standard TV wire-wound control rated 3 watts at 40° C. 1 7/64″ diameter. **Mech. Rotation:** 297°. **Elec. Rotation:** 290°. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜″-32 x ¼″. **Shaft:** ¼″ dia. x 19/32″ FMS, knurled with screwdriver slot. Furn. with nut. See listing below for switches for R controls.

Mallory No.	Ohms Resistance	Net Each
R8L	8	**$3.17**
R10L	10	**3.17**
R25L	25	**3.17**
R50L	50	**3.17**
R100L	100	**3.17**
R250L	250	**3.17**
R500L	500	**3.17**
R1000L	1000	**3.17**
R1500L	1500	**3.17**
R2500L	2500	**3.17**
R3000L	3000	**3.17**
R5000L	5000	**3.17**
R10ML	10000	**3.33**
R15ML	15000	**3.33**

SWITCH FOR TYPE R POTS

Mall. No.	Description	Net Each
US30	Single Pole, Single Throw	**$0.90**

4 WATT TYPE M

Rated 4 watts at 40° C. 1⅝″ diameter. **Mech. Rotation:** 294°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜″-32 x ⅜″ FMS. **Shaft:** ¼″ dia. x ¾″ FMS, knurled with screwdriver slot. Furn. with nut.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M1PK	1	2.00	**$4.23**
M6PK	6	82	**4.23**
M10PK	10	.63	**4.23**
M20PK	20	.45	**4.23**
M40PK	40	.32	**4.23**
M50PK	50	.28	**4.23**
M100PK	100	.20	**4.23**
M200PK	200	.14	**4.23**
M300PK	300	.116	**4.23**
M500PK	500	.09	**4.23**
M1MPK	1K	.063	**4.23**
M2MPK	2K	.045	**4.23**
M2.5MPK	2.5K	.04	**4.23**
M3MPK	3K	037	**4.23**
M5MPK	5K	.028	**4.23**
M10MPK	10K	.02	**4.23**
M20MPK	20K	.014	**4.61**
M25MPK	25K	.013	**4.81**
M50MPK	50K	.009	**4.84**
M100MPK	100K	.0062	**5.31**

RHEOSTATS*

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M05RK	0.5	2.80	**$5.51**
M10RK	10	.63	**5.51**
M50RK	50	.28	**5.51**

*"Open" or "Off" position counterclockwise.

STANDARD TAPER FOR MALLORY WIRE-WOUND CONTROLS IS NORMAL LINEAR TAPER. OTHER TAPERS MAY BE SPECIFIED ON SPECIAL ORDER.

5 WATT TYPE VW SUBMINIATURE

Rated 5 watts at 35° C. ¾″ diameter. **Mech. Rotation:** 305°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜″-32 x ⅜″. **Shaft:** ¼″ dia. x 2½″ FMS. Furn. with nut and lug.

Mallory No.	Ohms Resistance	Net Each
VW1	1	**$3.92**
VW2	2	**3.92**
VW3	3	**3.92**
VW5	5	**3.92**
VW8	8	**3.92**
VW10	10	**3.92**
VW15	15	**3.92**
VW20	20	**3.92**
VW25	25	**3.92**
VW30	30	**3.92**
VW40	40	**3.92**
VW50	50	**3.92**
VW75	75	**3.92**
VW100	100	**3.92**
VW200	200	**3.92**
VW250	250	**3.92**
VW300	300	**3.92**
VW400	400	**3.92**
VW500	500	**3.92**
VW750	750	**3.92**
VW1K	1000	**3.92**
VW1P5K	1500	**3.92**
VW2K	2000	**3.92**
VW2P5K	2500	**3.92**
VW3K	3000	**3.92**
VW5K	5000	**4.03**
VW7P5K	7500	**4.05**
VW10K	10000	**4.12**
VW15K	15000	**4.19**
VW20K	20000	**4.27**
VW25K	25000	**4.34**

12½ WATT TYPE MG

Rated 12½ watts at 35° C. 1⅝″ diameter. **Mech. Rotation:** 294°. **Elec. Rotation:** 275°. **Resis. Tolerance:** ±10%. **Voltage Breakdown:** 900 VAC rms. **Bushing:** ⅜″-32 x ⅜″ FMS. **Shaft:** ¼″ dia. x ¾″ FMS, knurled with screwdriver slot. Furn. with nut.

Mallory No.	Ohms Resistance	Net Each
MG3	3	**$4.86**
MG10	10	**4.86**
MG15	15	**4.86**
MG25	25	**4.86**
MG50	50	**4.86**
MG200	200	**4.86**
MG500	500	**4.86**
MG1000	1000	**5.13**
MG2500	2500	**4.86**
MG4000	4000	**4.86**
MG5000	5000	**5.13**
MG10K	10K	**5.13**
MG25K	25K	**5.47**

OHMITE® Rheostats, Couplings

VITREOUS ENAMELED RHEOSTATS, TANDEM COUPLING KITS

"E"

"E" Enclosed

6532 Kit

"N"

Wire-wound vitreous enameled rheostats with solid ceramic core. Pivoted, universal action. Metal-graphite contact brushes, varied to fit current and resistance. Models G, H, J, K, L, N and P are listed under UL Reexamination Service. Current ratings listed are in free air; when enclosed, currents should be reduced up to 50% depending on ventilation.

Model "E" Rheostats, 12½-Watt—Rating on metal panel. Size, ⅞" dia. x 1¹⁄₁₆" d. behind panel.

No.	Res., Ohms	Net Each, Lots of 1-4	5-9	10-24	25-49	50Up
0101	1	$8.69	$7.39	$5.83	$4.77	$3.67
0102	2	8.69	7.39	5.83	4.77	3.67
0102A	2.5	8.69	7.39	5.83	4.77	3.67
0103	3	8.69	7.39	5.83	4.77	3.67
0103A	5	8.69	7.39	5.83	4.77	3.67
0104	6	8.69	7.39	5.83	4.77	3.67
0105	8	8.69	7.39	5.83	4.77	3.67
0106	10	8.69	7.39	5.83	4.77	3.67
0107	15	8.44	7.18	5.66	4.64	3.56
0108	25	8.44	7.18	5.66	4.64	3.56
0109	35	8.44	7.18	5.66	4.64	3.56
0110	50	8.44	7.18	5.66	4.64	3.56
0111	75	8.44	7.18	5.66	4.64	3.56
0112	100	8.44	7.18	5.66	4.64	3.56
0113	125	8.44	7.18	5.66	4.64	3.56
0113A	150	8.44	7.18	5.66	4.64	3.56
0114	175	8.44	7.18	5.66	4.64	3.56
0114A	200	8.44	7.18	5.66	4.64	3.56
0115	250	8.44	7.18	5.66	4.64	3.56
0116	350	8.44	7.18	5.66	4.64	3.56
0117	500	8.44	7.18	5.66	4.64	3.56
0118	750	8.44	7.18	5.66	4.64	3.56
0119	1000	8.69	7.39	5.83	4.77	3.67
0120	1500	8.69	7.39	5.83	4.77	3.67
0121	2500	8.69	7.39	5.83	4.77	3.67
0122*	3500	10.48	8.91	7.02	5.76	4.41
0123*	5000	10.48	8.91	7.02	5.76	4.41
4190*	7500	10.79	9.17	7.23	5.93	4.53
4191*	10K	10.79	9.17	7.23	5.93	4.53
4192*	12.5K	11.73	9.98	7.87	6.46	4.93
4193*	15K	11.73	9.98	7.87	6.46	4.93

Model "E" Enclosed Rheostats—Same, but in corrosion-resistant dust-proof case. Use prefix **W** (W0101). Mt. on ⅛" panels.

Range, Ohms	Net Each, Lots of 1-4	5-9	10-24	25 Up
1-3	$17.87	$15.30	$12.06	$ 9.90
5-15	17.60	14.96	11.81	9.68
25-500	16.59	14.10	11.11	9.14
750-2.5K	17.60	14.96	11.81	9.68
3.5K*, 5K*	18.13	15.40	12.13	9.95
7.5K*, 10K*	18.63	15.83	12.48	10.24
12.5K*, 15K*	20.15	17.13	13.51	11.09

Model "H" Rheostats—25-Watt—Size, 1⁹⁄₁₆" dia. x 1⅜" d. behind panel.

No.	Res., Ohms	Net Each, Lots of 1-4	5-9	10-24	25-49	50Up
0140	1	$9.14	$7.78	$6.12	$5.01	$3.85
0141	2	9.14	7.78	6.12	5.01	3.85
0142	3	9.14	7.78	6.12	5.01	3.85
0143	6	9.14	7.78	6.12	5.01	3.85
0144	8	9.14	7.78	6.12	5.01	3.85
0145	10	9.14	7.78	6.12	5.01	3.85
0146	15	8.86	7.55	5.94	4.89	3.73
0147	25	8.86	7.55	5.94	4.89	3.73
0148	35	8.86	7.55	5.94	4.89	3.73
0149	50	8.86	7.55	5.94	4.89	3.73
0150	75	8.86	7.55	5.94	4.89	3.73
0151	100	8.86	7.55	5.94	4.89	3.73
0152	125	8.86	7.55	5.94	4.89	3.73
0153	175	8.86	7.55	5.95	4.89	3.73
0154	250	8.86	7.55	5.94	4.89	3.73
0155	350	8.86	7.55	5.94	4.89	3.73
0156	500	8.86	7.55	5.94	4.89	3.73
0157	750	8.86	7.55	5.94	4.89	3.73
0158	1000	9.14	7.78	6.12	5.01	3.85
0159	1500	9.14	7.78	6.12	5.01	3.85
0160	2500	9.14	7.78	6.12	5.01	3.85
0161	3500	10.29	8.74	6.89	5.66	4.31
0162	5000	10.29	8.74	6.89	5.66	4.31
4200*	7500	10.60	9.02	7.11	5.84	4.46
4201*	10K	10.60	9.02	7.11	5.84	4.46
4202*	15K	11.32	9.63	7.58	6.25	4.76
4203*	20K	12.05	10.22	8.08	6.61	5.06
4204*	25K	13.18	11.21	8.84	7.27	5.54

Model "J" Rheostats—50-Watt—Size, 2⁵⁄₁₆" dia. x 1⅜" d. behind panel.

No.	Res., Ohms	Net Each, Lots of 1-4	5-9	10-24	25-49	50Up
0308	0.5	10.72	$9.13	$7.18	$5.89	$4.50
0309	1	10.72	9.13	7.18	5.89	4.50
0310	2	10.72	9.13	7.18	5.89	4.50
0311	4	10.72	9.13	7.18	5.89	4.50
0312	6	10.72	9.13	7.18	5.89	4.50
0313	8	9.57	8.11	6.39	5.25	4.01
0314	12	9.57	8.11	6.39	5.25	4.01
0315	16	9.57	8.11	6.39	5.25	4.01
0316	22	9.57	8.11	6.39	5.25	4.01
0317	35	9.57	8.11	6.39	5.25	4.01
0318	50	9.57	8.11	6.39	5.25	4.01
0319	80	9.57	8.11	6.39	5.25	4.01
0320	125	9.57	8.11	6.39	5.25	4.01
0321	150	9.57	8.11	6.39	5.25	4.01
0322	225	9.57	8.11	6.39	5.25	4.01
0323	300	9.57	8.11	6.39	5.25	4.01
0324	500	9.57	8.11	6.39	5.25	4.01
0325	800	10.13	8.62	6.79	5.57	4.26
0326	1000	10.13	8.62	6.79	5.57	4.26
0327	1600	10.13	8.62	6.79	5.57	4.26
0328	2500	10.13	8.62	6.79	5.57	4.26
0329	3500	10.72	9.13	7.18	5.89	4.50
0330	5000	10.72	9.13	7.18	5.89	4.50
0331	8K	10.72	9.13	7.18	5.89	4.50
0332	10K	10.72	9.13	7.18	5.89	4.50
4210*	15K	12.83	10.90	8.60	7.07	5.40
4211*	20K	13.47	11.44	9.04	7.41	5.67
4212*	25K	14.90	12.67	10.00	8.20	6.27
4213*	30K	16.48	14.02	11.05	9.07	6.90
4214*	40K	18.93	16.08	12.67	10.41	7.93
4215*	50K	21.06	17.92	14.12	11.61	8.86

Model "G" Rheostats—75-Watt—Size, 2¾" dia. x 1¾" d. behind panel.

No.	Res., Ohms	Net Each, Lots of 1-4	5-9	10 Up
1100	0.5	$19.39	$16.48	$12.99
1101	1	19.39	16.48	12.99
1102	2	17.08	14.53	11.45
1103	3	17.08	14.53	11.45
1104	5	17.08	14.53	11.45
1105	7.5	17.08	14.53	11.45
1106	10	17.08	14.53	11.45
1107	16	13.87	11.78	9.29
1108	25	13.87	11.78	9.29
1109	50	13.87	11.78	9.29
1110	75	13.87	11.78	9.29
1111	100	13.87	11.78	9.29
1112	200	13.87	11.78	9.29
1113	300	13.87	11.78	9.29
1114	400	13.87	11.78	9.29
1115	500	13.87	11.78	9.29
1116	750	13.87	11.78	9.29
1117	1000	13.87	11.78	9.29
1118	1500	16.38	13.93	10.98
1119	2000	16.38	13.93	10.98
1120	2500	16.38	13.93	10.98
1121	5000	17.48	14.85	11.72
1122	7500	19.12	16.26	12.81

Model "K" Rheostats—100-Watt—Size, 3⅛" dia. x 1¾" d. behind panel.

		1-4	5-9	10-24	25 Up
0440	0.5	$19.96	$16.94	$13.35	$10.96
0441	1	19.96	16.94	13.35	10.96
0442	2	18.58	15.79	12.44	10.20
0443	3	18.58	15.79	12.44	10.20
0444	5	18.58	15.79	12.44	10.20
0445	7.5	18.58	15.79	12.44	10.20
0446	10	18.58	15.79	12.44	10.20
0447	16	15.57	13.23	10.42	8.56
0448	25	15.57	13.23	10.42	8.56
0449	50	15.57	13.23	10.42	8.56
0450	75	15.57	13.23	10.42	8.56
0451	100	15.57	13.23	10.42	8.56
0452	200	15.57	13.23	10.42	8.56
0453	300	15.57	13.23	10.42	8.56
0454	400	15.57	13.23	10.42	8.56
0455	500	15.57	13.23	10.42	8.56
0456	750	18.58	15.79	12.44	10.20
0457	1000	18.58	15.79	12.44	10.20
0458	1500	18.58	15.79	12.44	10.20
0459	2000	18.58	15.79	12.44	10.20
0460	2500	18.58	15.79	12.44	10.20
0461	5000	19.39	16.48	12.99	10.66
0462	7500	20.62	17.53	13.84	11.36
0463	10K	22.06	18.77	14.79	12.12

Model "L" Rheostats—150-Watt—Size 4" dia. x 2" d. behind panel.

No.	Res., Ohms	Net Each, Lots of 1-4	5-9	10-24	25 Up
0524	0.5	$22.11	$18.80	$14.82	$12.17
0525	1	22.11	18.80	14.82	12.17
0526	2	22.11	18.80	14.82	12.17
0527	3	19.33	16.45	12.96	10.65
0528	5	19.33	16.45	12.96	10.65
0529	7.5	19.33	16.45	12.96	10.65
0530	10	19.33	16.45	12.96	10.65
0531	15	19.33	16.45	12.96	10.65
0532	25	17.94	15.28	12.03	9.89
0533	35	17.94	15.28	12.03	9.89
0534	50	17.94	15.28	12.03	9.89
0535	75	17.94	15.28	12.03	9.89
0536	100	17.94	15.28	12.03	9.89
0537	150	17.94	15.28	12.03	9.89
0538	200	17.94	15.28	12.03	9.89
0539	250	17.94	15.28	12.03	9.89
0540	350	17.94	15.28	12.03	9.89
0541	500	17.94	15.28	12.03	9.89
0542	750	20.74	16.45	12.96	10.65
0543	1250	20.74	16.45	12.96	10.65
0544	1800	22.27	17.64	13.89	11.41
0545	2250	22.27	17.64	13.89	11.41
0546	3000	22.27	17.64	13.89	11.41
0547	4500	24.71	18.92	14.91	12.25
0548	7500	28.29	21.01	16.48	13.58
0549	10K	30.26	25.73	20.28	16.65

Model "P" Rheostats—225-Watt—Size, 5" dia. x 2⅛" d. behind panel.
Net Ea., 1-2. **$29.71**; Net Ea., 3 Up. **$25.25**

Model "N" Rheostats—300-Watt—Size, 6" dia. x 2⅜" d. behind panel.
Net Ea., 1-2. **$34.14**; Net Ea., 3 Up. **$29.02**

Resis., Ohms	Model "P"	Model "N"	Resis., Ohms	Model "P"	Model "N"
1	1250	0650	150	1262	0662
2	1251	0651	200	1263	0663
3	1252	0652	300	1264	0664
4	1253	0653	400	1265	0665
5	1254	0654	700	1266	0666
7.5	1255	0655	900	1267	0667
10	1256	0656	1200	1268	0668
15	1257	0657	1500	1269	0669
25	1258	0658	1750	1270	0670
50	1259	0659	2000	1270A	0670A
75	1260	0660	2500	1271	0671
100	1261	0661			

Model "R" Rheostats, 500-Watt—Size, 8" dia. x 2⅛" d. behind panel.
Net Ea., 1-2. **$40.57**; Net Ea., 3 Up. **$34.48**

Model "T" Rheostats, 750-Watt—Size, 10" dia. x 3" d. behind panel.
Net Ea., 1-2. **$60.09**; Net Ea., 3 Up. **$53.49**

Model "U" Rheostats, 1000-Watt—Size, 12" dia. x 3" d. behind panel.
Net Ea., 1-2. **$67.63**; Net Ea., 3 Up. **$60.87**

Resis., Ohms	Model "R"	Model "T"	Model "U"
1	0849	1300	1450
1.5	0850	1301	1451
2	0851	1302	1452
2.5	0852	1303	1453
3	0853	1304	1454
4	0854	1305	1455
5	0855	1306	1456
8	0856	1307	1457
10	....	1308	1458
12.5	0857	1309	1459
16	0858	1310	1460
25	0859	1311	1461
40	0860	....	....
50	0872	1312	1462
75	....	....	1463
80	0861	1313	....
100	....	1314	1464
125	0862	....	....
160	....	1315	....
175	0863	....	1465
200	....	1316	....
225	....	....	1466
250	0864	....	....
300	....	1317	1467
325	0865	....	....
400	....	1318	1468
500	0866	....	1469
600	....	1319	....
750	0867	1320	1470
1000	0868	....	1471
1200	....	1321	....
1500	0869	....	1472
1800	....	1322	....
2000	0870	1322A	....
2500	0871	1323	1473

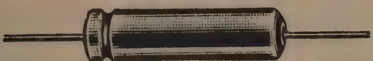
Tandem Coupling Kits—Includes steel "U" frame, coupling with set screw, mica washer, Allen wrench and instructions.

No.	For Models	Net Each, Lots of 1-4	5-9	10-24	25 Up
6532†	H, J	$ 8.07	$6.86	$5.39	$4.43
6533‡	G, K, L	10.32	8.78	6.91	5.68
6591	E	5.43	4.62	3.64	2.99

*Silicone-ceramic coated; not UL listed. †Models G, K or L in rear position when panel mounted. ‡Models G, H, J, K or L in rear position.

CORNELL-DUBILIER Electrolytic Capacitors

TYPE NLW SUBMINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



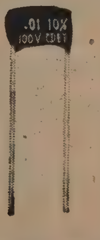
Smallest subminiature electrolytic capacitors. Welded construction, hermetically sealed in an aluminum case and provided with plastic insulating sleeve. **Operating Range:** −40° to +105°C. **Tolerance:** −10%, +75%.

CDE No.†	Cap. µF	Size*, In. D. x L.	Net Each, Lots of* 1-24	25-99	100-249	250-499	500-999
NLW 25-3	25	¼ x ½	$.800	$0.546	$0.340	$0.278	$0.254
NLW 100-3	100	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 125-3	125	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 150-3	150	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 200-3	200	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 250-3	250	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 300-3	300	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 350-3	350	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 400-3	400	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 450-3	450	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 500-3	500	⅜ x 1	1.291	.880	.548	.449	.410
NLW 1000-3	1000	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 10-6	10	¼ x ½	.800	.546	.340	.278	.254
NLW 30-6	30	¼ x ½	.800	.546	.340	.278	.254
NLW 40-6	40	¼ x ½	.800	.546	.340	.278	.254
NLW 50-6	50	¼ x ⅝	.903	.616	.383	.314	.287
NLW 100-6	100	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 150-6	150	⁵⁄₁₆ x ¾	1.188	.811	.504	.414	.378
NLW 175-6	175	⁵⁄₁₆ x ¾	1.188	.811	.504	.414	.378
NLW 200-6	200	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 250-6	250	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 300-6	300	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 350-6	350	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 500-6	500	⅜ x 1¼	1.340	.913	.568	.466	.427
NLW 800-6	800	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 8-10	8	¼ x ½	.800	.546	.340	.278	.254
NLW 50-10	50	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 125-10	125	⁵⁄₁₆ x ¾	1.188	.811	.504	.414	.378
NLW 225-10	225	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 450-10	450	⅜ x 1¼	1.372	.935	.582	.479	.437
NLW 15-12	15	¼ x ½	.800	.546	.340	.278	.254
NLW 25-12	25	¼ x ½	.800	.546	.340	.278	.254
NLW 30-12	30	¼ x ½	.800	.546	.340	.278	.254
NLW 35-12	35	¼ x ⅝	.800	.546	.340	.278	.254
NLW 40-12	40	¼ x ⅝	.903	.616	.383	.314	.287
NLW 75-12	75	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 100-12	100	⁵⁄₁₆ x ¾	1.188	.811	.504	.414	.378
NLW 125-12	125	⅜ x ⅝	1.188	.811	.504	.414	.378
NLW 200-12	200	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 250-12	250	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 300-12	300	⅜ x 1	1.291	.880	.548	.449	.410
NLW 400-12	400	⅜ x 1¼	1.372	.935	.582	.479	.437
NLW 500-12	500	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 4-16	4	¼ x ½	.800	.546	.340	.278	.254
NLW 5-16	5	¼ x ½	.800	.546	.340	.278	.254
NLW 10-16	10	¼ x ½	.800	.546	.340	.278	.254
NLW 15-16	15	¼ x ½	.800	.546	.340	.278	.254
NLW 20-16	20	¼ x ½	.800	.546	.340	.278	.254
NLW 25-16	25	¼ x ⅝	.800	.546	.340	.278	.254
NLW 30-16	30	¼ x ⅝	.903	.616	.383	.314	.287
NLW 40-16	40	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 50-16	50	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 75-16	75	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 100-16	100	⁵⁄₁₆ x ¾	1.188	.811	.504	.414	.378
NLW 125-16	125	⅜ x ¾	1.188	$0.811	$0.504	$0.414	$0.378
NLW 150-16	150	⅜ x ¾	1.238	.844	.525	.431	.394
NLW 175-16	175	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 200-16	200	⅜ x ⅞	1.291	.880	.548	.449	.410
NLW 250-16	250	⅜ x 1	1.291	.880	.548	.449	.410
NLW 300-16	300	⅜ x 1¼	1.340	.913	.568	.446	.427
NLW 350-16	350	⅜ x 1¼	1.340	.913	.568	.446	.427
NLW 400-16	400	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 450-16	450	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 600-16	600	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 1-25	1	¼ x ½	.800	.546	.340	.278	.254
NLW 2-25	2	¼ x ½	.800	.546	.340	.278	.254
NLW 3-25	3	¼ x ½	.800	.546	.340	.278	.254
NLW 5-25	5	¼ x ½	.800	.546	.340	.278	.254
NLW 6-25	6	¼ x ½	.800	.546	.340	.278	.254
NLW 8-25	8	¼ x ½	.800	.546	.340	.278	.254
NLW 10-25	10	¼ x ½	.800	.546	.340	.278	.254
NLW 15-25	15	¼ x ½	.800	.546	.340	.278	.254
NLW 20-25	20	¼ x ⅝	.903	.616	.383	.314	.287
NLW 25-25	25	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 30-25	30	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 35-25	35	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 40-25	40	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 50-25	50	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 75-25	75	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 100-25	100	⅜ x ¾	1.238	.844	.525	.431	.394
NLW 125-25	125	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 150-25	150	⅜ x 1	1.291	.880	.548	.449	.410
NLW 175-25	175	⅜ x 1¼	1.372	.935	.582	.479	.437
NLW 200-25	200	⅜ x 1¼	1.372	.935	.582	.479	.437
NLW 250-25	250	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 300-25	300	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 1-50	1	¼ x ½	.800	.546	.340	.278	.254
NLW 2-50	2	¼ x ½	.800	.546	.340	.278	.254
NLW 3-50	3	¼ x ½	.800	.546	.340	.278	.254
NLW 4-50	4	¼ x ½	.800	.546	.340	.278	.254
NLW 5-50	5	¼ x ½	.800	.546	.340	.278	.254
NLW 6-50	6	¼ x ½	.800	.546	.340	.278	.254
NLW 8-50	8	¼ x ⅝	.800	.546	.340	.278	.254
NLW 10-50	10	¼ x ⅝	.903	.616	.383	.314	.287
NLW 15-50	15	⁵⁄₁₆ x ⅝	.903	.616	.383	.314	.287
NLW 20-50	20	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 25-50	25	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 30-50	30	⅜ x ⅝	1.188	.811	.504	.414	.378
NLW 35-50	35	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 40-50	40	⅜ x ¾	1.238	.844	.525	.431	.394
NLW 50-50	50	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 75-50	75	⅜ x 1	1.291	.880	.548	.449	.410
NLW 100-50	100	⅜ x 1¼	1.340	.913	.568	.466	.427
NLW 125-50	125	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 2-100	2	¼ x ½	.903	.616	.383	.314	.287
NLW 4-100	4	⁵⁄₁₆ x ⅝	1.010	.690	.428	.352	.321
NLW 5-100	5	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 6-100	6	⁵⁄₁₆ x ⅝	1.135	.774	.482	.395	.362
NLW 8-100	8	⅜ x ⅝	1.188	.811	.504	.414	.378
NLW 10-100	10	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 15-100	15	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 20-100	20	⅜ x 1	1.291	.880	.548	.449	.410
NLW 25-100	25	⅜ x 1	1.340	.913	.568	.466	.427
NLW 30-100	30	⅜ x 1¼	1.372	.935	.582	.479	.437
NLW 40-100	40	⅜ x 1½	1.474	1.005	.625	.515	.470
NLW 1-150	1	¼ x ½	.903	.616	.383	.314	.287
NLW 2-150	2	¼ x ⅝	.903	.616	.383	.314	.287
NLW 3-150	3	⁵⁄₁₆ x ⅝	1.010	.690	.428	.352	.321
NLW 4-150	4	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 5-150	5	⁵⁄₁₆ x ¾	1.135	.774	.482	.395	.362
NLW 6-150	6	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 8-150	8	⅜ x ¾	1.188	.811	.504	.414	.378
NLW 10-150	10	⅜ x ⅞	1.238	.844	.525	.431	.394
NLW 12-150	12	⅜ x 1	1.291	.880	.548	.449	.410
NLW 15-150	15	⅜ x 1¼	1.291	.880	.548	.449	.410
NLW 18-150	18	⅜ x 1¼	1.340	.913	.568	.466	.427
NLW 20-150	20	⅜ x 1½	1.372	.935	.582	.479	.437
NLW 25-150	25	⅜ x 1½	1.474	1.005	.625	.515	.470

*Add 1/32" x 1/16" for overall size. †Final digit(s) denote voltage rating.

★LARGER QUANTITIES AVAILABLE ON REQUEST

TYPE DMT DIPPED POLYESTER CAPACITORS



Film dielectric capacitors feature small size, excellent moisture resistance, high insulation resistance and low dissipation factor. **Voltage Rating:** 100 volts DC at 125° C. **Tolerance:** ±10%. **Temperature Range:** −55° C to +125° C.

CDE No.	Cap., µF	Size, Inches H x L x Th.	Net Ea., Lots of 1-24	25-99	100-499
DMT1D1	.001	.330 x .437 x .190	$0.260	$0.165	$0.116
DMT1D15	.0015	.330 x .437 x .200	.270	.171	.119
DMT1D22	.0022	.330 x .437 x .210	.278	.176	.123
DMT1D33	.0033	.330 x .437 x .210	.283	.179	.125
DMT1D47	.0047	.330 x .437 x .210	.293	.185	.130
DMT1D68	.0068	.330 x .437 x .210	.297	.188	.132
DMT1S1	.01	.310 x .437 x .220	.283	.179	.125
DMT1S15	.015	.370 x .437 x .220	.303	.191	.134
DMT1S22	.022	.390 x .437 x .255	.307	.195	.136
DMT1S33	.033	.350 x .560 x .250	.311	.198	.138
DMT1S47	.047	.420 x .560 x .260	.316	.200	.140
DMT1S68	.068	.460 x .560 x .275	.330	.209	.146
DMT1P1	.1	.445 x .682 x .290	.340	.216	.151
DMT1P15	.15	.490 x .682 x .350	.406	.257	.179
DMT1P22	.22	.520 x .820 x .360	.472	.299	.209
DMT1P33	.33	.560 x .942 x .390	.534	.338	.237
DMT1P47	.47	.600 x 1.08 x .420	.623	.395	.276

TYPE FAH COMPUTAMITE® COMPUTER GRADE CAPACITORS

High capacitance DC aluminum electrolytics for use where banks of high capacitance filters are required. Operating temperature −40° C to +85° C. **Tolerance:** 3–50 WVDC, −10 +100%; 51–350 WVDC, −10 +75%; 351–450 WVDC; −10 +50%.

CDE Number	Cap., µF	Size/ Price Code★
3 VDC RATED—4 VDC SURGE		
FAH14000-3-A1	14000	A1
FAH27000-3-A2	27000	A2
FAH36000-3-A3	36000	A3
FAH48000-3-A6	48000	A6
FAH61000-3-E3	61000	E3
FAH58000-3-B2	58000	B2
FAH86000-3-B3	86000	B3
FAH145000-3-C3	145000	C3
FAH200000-3-C6	200000	C6
FAH210000-3-D3	210000	D3
FAH300000-3-D6	300000	D6
6 VDC RATED—8 VDC SURGE		
FAH12000-6-A1	12000	A1
FAH20500-6-A2	20500	A2
FAH31000-6-A3	31000	A3
FAH47000-6-A6	47000	A6
FAH50000-6-B2	50000	B2
FAH78000-6-B3	78000	B3
FAH110000-6-B6	110000	B6
FAH125000-6-C3	125000	C3
FAH190000-6-C6	190000	C6
FAH190000-6-D3	190000	D3
FAH275000-6-D6	275000	D6
10 VDC RATED—12 VDC SURGE		
FAH8500-10-A1	8500	A1
FAH14500-10-A2	14500	A2
FAH22000-10-A3	22000	A3
FAH33000-10-A6	33000	A6
FAH37000-10-E3	37000	E3
FAH55000-10-B3	55000	B3
FAH78000-10-B6	78000	B6
FAH90000-10-C3	90000	C3
FAH125000-10-C6	125000	C6
FAH135000-10-D3	135000	D3
FAH200000-10-D6	200000	D6
15 VDC RATED—18 VDC SURGE		
FAH6500-15-A1	6500	A1
FAH12000-15-A2	12000	A2
FAH18000-15-A3	18000	A3
FAH28500-15-E3	28500	E3
FAH27000-15-B2	27000	B2
FAH42500-15-B3	42500	B3
FAH60000-15-B6	60000	B6
FAH69000-15-C3	69000	C3
FAH100000-15-C6	100000	C6
FAH100000-15-D3	100000	D3
FAH150000-15-D6	150000	D6
20 VDC RATED—25 VDC SURGE		
FAH4600-20-A1	4600	A1
FAH7500-20-A2	7500	A2
FAH12000-20-A3	12000	A3
FAH18000-20-A6	18000	A6
FAH20000-20-E3	20000	E3
FAH25000-20-B2	25000	B2
FAH30000-20-B3	30000	B3
FAH42500-20-B6	42500	B6
FAH50000-20-C3	50000	C3
FAH73000-20-D3	73000	D3
FAH100000-20-D6	100000	D6
25 VDC RATED—30 VDC SURGE		
FAH3700-25-A1	3700	A1
FAH6000-25-A2	6000	A2
FAH11000-25-A3	11000	A3
FAH12000-25-A6	12000	A6
FAH16000-25-E3	16000	E3
FAH15000-25-B2	15000	B2
FAH24000-25-B3	24000	B3
FAH35000-25-B6	35000	B6
FAH60000-25-C6	60000	C6
FAH59000-25-D3	59000	D3
FAH84000-25-D6	84000	D6
30 VDC RATED—40 VDC SURGE		
FAH3000-30-A1	3000	A1
FAH4900-30-A2	4900	A2
FAH8000-30-A3	8000	A3
FAH10000-30-A6	10000	A6

CDE Number	Cap., µF	Size/ Price Code★
30 VDC RATED—40 VDC SURGE (CONTINUED)		
FAH14000-30-E3	14000	E3
FAH14000-30-B2	14000	B2
FAH20000-30-B3	20000	B3
FAH25000-30-B6	25000	B6
FAH50000-30-C6	50000	C6
FAH42500-30-D3	42500	D3
FAH66000-30-D6	66000	D6
40 VDC RATED—50 VDC SURGE		
FAH4300-40-A2	4300	A2
FAH6300-40-A3	6300	A3
FAH9300-40-A6	9300	A6
FAH11000-40-E3	11000	E3
FAH12000-40-B2	12000	B2
FAH14500-40-B3	14500	B3
FAH20500-40-B6	20500	B6
FAH23500-40-C3	23500	C3
FAH40000-40-C6	40000	C6
FAH40000-40-D3	40000	D3
FAH60000-40-D6	60000	D6
50 VDC RATED—65 VDC SURGE		
FAH1600-50-A1	1600	A1
FAH3000-50-A2	3000	A2
FAH4500-50-A3	4500	A3
FAH7500-50-E3	7500	E3
FAH7000-50-B2	7000	B2
FAH9500-50-B3	9500	B3
FAH13500-50-B6	13500	B6
FAH20000-50-C3	20000	C3
FAH25000-50-C6	25000	C6
FAH23000-50-D3	23000	D3
FAH40000-50-D6	40000	D6
60 VDC RATED—75 VDC SURGE		
FAH1300-60-A1	1300	A1
FAH2200-60-A2	2200	A2
FAH3300-60-A3	3300	A3
FAH5500-60-E3	5500	E3
FAH6000-60-B2	6000	B2
FAH8000-60-B3	8000	B3
FAH10500-60-B6	10500	B6
FAH12500-60-C3	12500	C3
FAH16000-60-C6	16000	C6
FAH18500-60-D3	18500	D3
FAH26500-60-D6	26500	D6
75 VDC RATED—95 VDC SURGE		
FAH1700-75-A2	1700	A2
FAH2600-75-A3	2600	A3
FAH3800-75-A6	3800	A6
FAH4500-75-E3	4500	E3
FAH4100-75-B2	4100	B2
FAH6500-75-B3	6500	B3
FAH9000-75-B6	9000	B6
FAH10500-75-C3	10500	C3
FAH15000-75-C6	15000	C6
FAH16000-75-D3	16000	D3
FAH22500-75-D6	22500	D6
100 VDC RATED—125 VDC SURGE		
FAH800-100-A1	800	A1
FAH1100-100-A2	1100	A2
FAH1650-100-A3	1650	A3
FAH2000-100-A6	2000	A6
FAH2800-100-E3	2800	E3
FAH4100-100-B3	4100	B3
FAH5500-100-B6	5500	B6
FAH6500-100-C3	6500	C3
FAH9000-100-C6	9000	C6
FAH9000-100-D3	9000	D3
FAH13000-100-D6	13000	D6
150 VDC RATED—175 VDC SURGE		
FAH400-150-A1	400	A1
FAH700-150-A2	700	A2
FAH1050-150-A3	1050	A3
FAH1450-150-A6	1450	A6
FAH1850-150-E3	1850	E3
FAH1850-150-B2	1850	B2
FAH2600-150-B3	2600	B3
FAH3800-150-B6	3800	B6

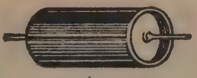
CDE Number	Cap., µF	Size/ Price Code★
150 VDC RATED—175 VDC SURGE (CONTINUED)		
FAH4100-150-C3	4100	C3
FAH5300-150-C6	5300	C6
FAH5500-150-D3	5500	D3
FAH8500-150-D6	8500	D6
200 VDC RATED—250 VDC SURGE		
FAH250-200-A1	250	A1
FAH430-200-A2	430	A2
FAH640-200-A3	640	A3
FAH950-200-A6	950	A6
FAH1000-200-B2	1000	B2
FAH1500-200-B3	1500	B3
FAH2100-200-B6	1200	B6
FAH2500-200-C3	2500	C3
FAH3700-200-C6	3700	C6
FAH3700-200-D3	3700	D3
FAH5500-200-D6	5500	D6
250 VDC RATED—300 VDC SURGE		
FAH180-250-A1	180	A1
FAH350-250-A2	350	A2
FAH780-250-A6	780	A6
FAH900-250-E3	900	E3
FAH900-250-B2	900	B2
FAH1200-250-B3	1200	B3
FAH1700-250-B6	1700	B6
FAH2000-250-C3	2000	C3
FAH3000-250-C6	3000	C6
FAH3000-250-D3	3000	D3
FAH4500-250-D6	4500	D6
300 VDC RATED—350 VDC SURGE		
FAH160-300-A1	160	A1
FAH425-300-A3	425	A3
FAH550-300-A6	550	A6
FAH700-300-E3	700	E3
FAH650-300-B2	650	B2
FAH1050-300-B3	1050	B3
FAH1550-300-B6	1550	B6
FAH1700-300-C3	1700	C3
FAH2400-300-C6	2400	C6
FAH2500-300-D3	2500	D3
FAH3500-300-D6	3500	D6
350 VDC RATED—400 VDC SURGE		
FAH100-350-A1	100	A1
FAH190-350-A2	190	A2
FAH290-350-A3	290	A3
FAH440-350-A6	440	A6
FAH525-350-E3	525	E3
FAH420-350-B2	420	B2
FAH650-350-B3	650	B3
FAH1000-350-B6	1000	B6
FAH1200-350-C3	1200	C3
FAH1700-350-C6	1700	C6
FAH1700-350-D3	1700	D3
400 VDC RATED—450 VDC SURGE		
FAH80-400-A1	80	A1
FAH140-400-A2	140	A2
FAH200-400-A3	200	A3
FAH300-400-A6	300	A6
FAH375-400-E3	375	E3
FAH500-400-B3	500	B3
FAH700-400-B6	700	B6
FAH900-400-C3	900	C3
FAH1200-400-C6	1200	C6
FAH1350-400-D3	1350	D3
FAH1900-400-D6	1900	D6
450 VDC RATED—525 VDC SURGE		
FAH70-450-A1	70	A1
FAH120-450-A2	120	A2
FAH180-450-A3	180	A3
FAH240-450-A6	240	A6
FAH325-450-E3	325	E3
FAH275-450-B2	275	B2
FAH425-450-B3	425	B3
FAH600-450-B6	600	B6
FAH960-450-C6	960	C6
FAH1100-450-D3	1100	D3
FAH1600-450-D6	1600	D6

★ SIZE/PRICE CODES

Code	Diam. x Lgth. Inches	3 Volts Thru 50 Volts Net Each, Lots of				60 Volts Thru 450 Volts Net Each, Lots of			
		1-24	25-49	50-99	100-Up	1-24	25-49	50-99	100-Up
A1	1⅜ x 2⅛	$ 5.32	$ 4.28	$ 3.37	$ 2.74	$ 5.73	$ 4.61	$ 3.63	$ 2.95
A2	1⅜ x 3⅛	6.15	4.94	3.88	3.17	7.04	5.68	4.44	3.63
A3	1⅜ x 4⅛	6.70	5.39	4.24	3.45	8.38	6.73	5.30	4.31
A6	1⅜ x 5⅝	8.45	6.79	5.35	4.33	9.87	7.94	6.24	5.07
E3	1¾ x 4⅛	9.12	7.34	5.76	4.70	10.51	8.46	6.63	5.40
B2	2 x 3⅛	8.93	7.21	5.65	4.59	10.19	8.18	6.44	5.24
B3	2 x 4⅛	10.84	8.71	6.86	5.57	13.15	10.56	8.31	6.75
B6	2 x 5⅝	13.15	10.57	8.32	6.75	16.45	13.21	10.40	8.45
C3	2½ x 4⅛	15.74	12.68	9.96	8.10	19.93	16.04	12.60	10.24
C6	2½ x 5⅝	18.94	15.24	11.98	9.74	23.51	18.90	14.87	12.08
D3	3 x 4⅛	22.25	17.91	14.08	11.43	25.97	20.90	16.43	13.34
D6	3 x 5⅝	28.06	22.55	17.73	14.42	33.59	27.02	21.24	17.26

CDE CORNELL-DUBILIER Electrolytic Capacitors

TYPE WBR WIDE-RANGE TUBULAR ELECTROLYTICS



Aluminum electrolytic capacitors feature welded termination; hermetically sealed, with highly etched cathode and anode foil. With flexible plastic sleeve. **Operating Temperature:** −40° C to +85° C, up to 450 V; to +65° C, up to 700 V.

CDE No. WBR-	Cap., µF	WV DC	Size, In.* Dia. x L.	Net Each, Lots of ★			
				1-24	25-99	100-249	250-499
1000-6	1000	6	⅝ x 1 7/16	$3.066	$2.349	$1.281	$1.068
2000-6	2000	6	¾ x 1 7/16	3.314	2.538	1.385	1.154
3000-10	3000	10	¾ x 1 11/16	4.254	3.259	1.778	1.481
4000-10	4000	10	⅞ x 1 11/16	4.444	3.405	1.857	1.548
5000-10	5000	10	⅞ x 2	4.872	3.732	2.036	1.696
10000-10	10,000	10	1 x 2 11/16	5.593	4.285	2.337	1.948
100-16	100	16	5/16 x ¾	1.537	1.177	.642	.535
250-16	250	16	⅜ x 1	1.601	1.227	.669	.558
500-16	500	16	½ x 1 7/16	1.684	1.290	.704	.586
1000-16	1000	16	⅝ x 1 11/16	2.197	1.679	.920	.771
2000-16	2000	16	¾ x 2	2.703	2.071	1.130	.941
3000-16	3000	16	¾ x 2½	3.443	2.637	1.439	1.199
4000-16	4000	16	⅞ x 2½	4.660	3.570	1.947	1.623
5000-16	5000	16	1 x 2 3/16	5.450	4.175	2.277	1.898
10000-16	10,000	16	1⅛ x 3 9/16	8.006	6.133	3.345	2.788
10-25	10	25	¼ x ½	.962	.737	.402	.335
25-25	25	25	5/16 x ⅝	1.077	.825	.450	.375
50-25	50	25	5/16 x ¾	1.357	1.040	.567	.473
100-25	100	25	⅜ x ¾	1.483	1.136	.620	.516
250-25	250	25	½ x 1 7/16	1.749	1.341	.730	.611
500-25	500	25	⅝ x 1 7/16	2.277	1.740	.949	.791
1000-25	1000	25	¾ x 1 11/16	3.763	2.933	1.569	1.306
2000-25	2000	25	¾ x 2½	4.632	3.539	1.931	1.609
100-35	100	35	⅜ x 1	1.483	1.136	.620	.516
150-35	150	35	½ x 1 1/16	1.590	1.218	.665	.554
300-35	300	35	⅝ x 1 1/16	1.827	1.400	.762	.638
500-35	500	35	⅝ x 1 7/16	2.277	1.809	.949	.791
1000-35	1000	35	¾ x 1 11/16	3.763	2.933	1.569	1.306
2000-35	2000	35	⅞ x 2½	4.632	3.539	1.931	1.609
3000-35	3000	35	1 x 2½	5.338	4.089	2.231	1.859
5500-35	5500	35	1⅛ x 3 9/16	8.853	6.782	3.700	3.083
1-50	1	50	¼ x ½	.959	.734	.401	.339
2-50	2	50	¼ x ½	.959	.734	.401	.339
5-50	5	50	¼ x ½	.959	.734	.401	.339
10-50	10	50	⅜ x ⅝	1.077	.825	.450	.375
25-50	25	50	⅜ x ⅝	1.357	1.040	.567	.473
35-50	35	50	⅜ x ¾	1.415	1.084	.591	.493
50-50	50	50	⅜ x ⅞	1.483	1.136	.620	.516
100-50	100	50	½ x 1 7/16	1.623	1.243	.678	.565
125-50	125	50	½ x 1 7/16	1.781	1.364	.744	.620
150-50	150	50	⅝ x 1 1/16	1.827	1.400	.764	.636
250-50	250	50	⅝ x 1 7/16	1.967	1.507	.822	.685
500-50	500	50	¾ x 1 11/16	2.416	1.851	1.010	.841
1000-50	1000	50	⅞ x 2	3.971	3.042	1.659	1.383
1500-50	1500	50	1 x 2 3/16	5.256	4.026	2.196	1.830
2000-50	2000	50	1 x 2 11/16	6.186	4.738	2.585	2.154
3000-50	3000	50	1 x 4 1/16	8.727	6.685	3.647	3.039
5000-50	5000	50	1⅜ x 3⅝	11.818	9.053	4.938	4.115
150-75	150	75	⅝ x 1 7/16	2.143	1.642	.896	.746
275-75	275	75	¾ x 1 11/16	2.664	2.041	1.113	.928
500-75	500	75	⅞ x 2	3.784	2.899	1.581	1.318
1000-75	1000	75	1 x 2½	5.676	4.348	2.372	1.976
2000-75	2000	75	1⅜ x 2 9/16	9.406	7.205	3.930	3.275
400-100	400	100	⅞ x 2½	5.209	3.990	2.177	1.814
600-100	600	100	1 x 2 11/16	6.354	4.868	2.655	2.213
1000-100	1000	100	1 x 4 1/16	9.065	6.944	3.788	3.156
1500-100	1500	100	1⅜ x 3⅝	11.563	8.858	4.832	4.026
2000-100	2000	100	1⅜ x 4⅛	14.023	10.742	5.859	4.883
4-150	4	150	5/16 x ¾	1.357	1.040	.567	.473
5-150	5	150	⅜ x ⅝	1.357	1.040	.567	.473
8-150	8	150	⅜ x ¾	1.414	1.084	.591	.493
10-150	10	150	⅜ x ⅞	1.483	1.136	.620	.516
16-150	16	150	⅜ x 1	1.594	1.221	.666	.555
20-150	20	150	⅜ x 1¼	1.633	1.251	.683	.569
30-150	30	150	⅜ x 1½	1.781	1.364	.744	.620
40-150	40	150	⅝ x 1 7/16	1.921	1.471	.803	.669
50-150	50	150	⅝ x 1 7/16	$1.944	$1.489	$0.811	$0.679
60-150	60	150	⅝ x 1 7/16	2.060	1.579	.859	.719
80-150	80	150	¾ x 1 7/16	2.177	1.668	.909	.760
100-150	100	150	¾ x 1 11/16	2.391	1.832	.999	.833
150-150	150	150	⅞ x 1 11/16	2.825	2.164	1.181	.984
160-150	160	150	⅞ x 1 11/16	3.052	2.338	1.275	1.063
200-150	200	150	⅞ x 2	3.177	2.434	1.328	1.106
250-150	250	150	1 x 1 11/16	3.744	2.868	1.565	1.304
300-150	300	150	1 x 2 3/16	4.392	3.366	1.832	1.533
350-150	350	150	1 x 2 3/16	5.252	4.023	2.195	1.829
500-150	500	150	1⅛ x 2½	6.397	4.901	2.673	2.228
125-180	125	180	¾ x 2½	3.805	2.915	1.590	1.325
225-180	225	180	⅞ x 2½	4.660	3.570	1.947	1.623
260-180	260	180	1 x 2 3/16	5.507	4.219	2.301	1.918
400-180	400	180	1⅛ x 2½	6.480	4.964	2.708	2.256
4-250	4	250	½ x 1 1/16	1.547	1.185	.647	.539
8-250	8	250	½ x 1 7/16	1.651	1.265	.690	.575
12-250	12	250	½ x 1 7/16	1.702	1.304	.711	.593
16-250	16	250	⅝ x 1 1/16	1.820	1.394	.761	.634
20-250	20	250	¾ x 1 1/16	1.944	1.489	.811	.679
30-250	30	250	¾ x 1 7/16	2.373	1.818	.992	.826
40-250	40	250	⅝ x 1 11/16	2.402	1.840	1.004	.836
50-250	50	250	¾ x 1 11/16	2.570	1.969	1.074	.895
60-250	60	250	¾ x 2	2.997	2.142	1.169	.974
80-250	80	250	⅞ x 1 11/16	2.915	2.233	1.218	1.015
100-250	100	250	⅞ x 2	3.156	2.417	1.319	1.099
160-250	160	250	1 x 2 3/16	4.448	3.407	1.859	1.549
225-250	225	250	1 x 2 11/16	5.550	4.252	2.319	1.933
300-250	300	250	1 x 3 9/16	6.738	5.162	2.816	2.346
450-250	450	250	1⅜ x 3 1/16	9.363	7.172	3.912	3.260
4-350	4	350	½ x 1 1/16	2.703	2.071	1.130	.941
8-350	8	350	⅝ x 1 1/16	2.919	2.236	1.220	1.016
20-350	20	350	¾ x 1 7/16	3.195	2.448	1.335	1.113
40-350	40	350	¾ x 1 11/16	3.680	2.819	1.538	1.281
60-350	60	350	¾ x 2½	4.042	3.097	1.689	1.408
100-350	100	350	1 x 2	5.252	4.023	2.195	1.829
160-350	160	350	1⅛ x 2½	6.735	5.159	2.814	2.345
200-350	200	350	1 x 4 1/16	7.076	5.420	2.957	2.464
250-350	250	350	1⅛ x 3 9/16	8.641	6.619	3.611	3.009
1-450	1	450	⅝ x 1 1/16	2.800	2.145	1.170	.975
2-450	2	450	⅝ x 1 1/16	2.815	2.156	1.176	.980
4-450	4	450	⅝ x 1 1/16	2.872	2.200	1.200	1.000
5-450	5	450	⅝ x 1 1/16	2.894	2.217	1.209	1.008
8-450	8	450	¾ x 1 1/16	3.091	2.368	1.292	1.076
10-450	10	450	¾ x 1 1/16	3.163	2.423	1.322	1.101
12-450	12	450	¾ x 1 1/16	3.163	2.423	1.322	1.101
16-450	16	450	¾ x 1 7/16	3.267	2.503	1.365	1.138
20-450	20	450	¾ x 1 11/16	3.454	2.646	1.443	1.203
30-450	30	450	⅞ x 1 11/16	4.067	3.116	1.700	1.416
40-450	40	450	⅞ x 2	4.182	3.204	1.748	1.456
50-450	50	450	⅞ x 2½	4.746	3.636	1.983	1.653
60-450	60	450	1 x 2 3/16	4.746	3.636	1.983	1.653
80-450	80	450	1 x 2 11/16	5.209	3.990	2.177	1.814
100-450	100	450	1 x 3 9/16	6.017	4.609	2.514	2.095
120-450	120	450	1⅛ x 3	6.864	5.258	2.868	2.390
160-450	160	450	1⅛ x 4 1/16	7.837	6.003	3.275	2.729
225-450	225	450	1⅜ x 3⅝	9.912	7.593	4.142	3.451
1-500	1	500	½ x 1 1/16	2.886	2.211	1.206	1.005
3-500	3	500	½ x 1 7/16	2.944	2.255	1.230	1.025
5-500	5	500	⅝ x 1 1/16	3.052	2.338	1.275	1.063
8-500	8	500	¾ x 1 1/16	3.156	2.417	1.319	1.099
10-500	10	500	⅝ x 1 11/16	3.206	2.456	1.340	1.116
16-500	16	500	¾ x 1 11/16	3.393	2.599	1.418	1.181
20-500	20	500	¾ x 2	3.525	2.701	1.473	1.228
30-500	30	500	⅞ x 1 11/16	4.279	3.278	1.788	1.490
40-500	40	500	⅞ x 2½	4.362	3.341	1.823	1.519
60-500	60	500	1 x 2½	5.040	3.861	2.106	1.755
4-600	4	600	1 1/16 x 2 7/16†	6.017	4.609	2.514	2.095
8-600	8	600	1 3/16 x 2 7/16†	6.48	4.964	2.708	2.256
10-600	10	600	1 3/16 x 3 3/16†	7.202	5.517	3.009	2.508
16-600	16	600	1 5/16 x 3 3/16†	7.245	5.550	3.027	2.523
20-600	20	600	1 5/16 x 3 11/16†	7.288	5.583	3.045	2.538
10-700	10	700	1 5/16 x 3 3/16†	7.413	5.679	3.098	2.581
16-700	16	700	1 5/16 x 4 5/16†	7.500	5.745	3.134	2.611

*Uninsulated case size; add 1/16″ to dia. and 3/16″ to lgth. for size including insulating sleeve. †Overall size, including sleeve.

★LARGER QUANTITY PRICES ON REQUEST.

OUR STOCKS ARE FULLY UP TO DATE WITH ALL THE LATEST PRODUCTS.
ASK ABOUT NEW OR UNLISTED ITEMS.

TYPE WMF POLYESTER DIELECTRIC FILM-ENCASED CAPACITORS

Ultra-compact polyester dielectric in film wrap; thermosetting epoxy end seals. High resistance to humidity. Excellent stability.

Temp: −55° C to +85° C at full voltage: derate 10% at 100° C; 50% at 125° C. **Tol.:** ±10%. Other tolerances also available; prices on request.

CDE No. WMF	Cap., µF	WV DC	Size, In. Dia. x Lg.	Net Each, Lots of 1-24	25-99	100-499	500-999	1000-Up
05P1	.1	50	.250 x .812	$0.745	$0.447	$0.283	$0.239	$0.186
05P12	.12	50	.275 x .812	.759	.455	.289	.243	.191
05P15	.15	50	.285 x .812	.773	.463	.294	.247	.193
05P18	.18	50	.315 x .812	.787	.472	.299	.251	.198
05P22	.22	50	.330 x .812	.814	.489	.309	.261	.205
05P27	.27	50	.390 x .812	.925	.554	.352	.296	.232
05P33	.33	50	.400 x .812	1.063	.637	.405	.339	.267
05P39	.39	50	.375 x 1.062	1.221	.733	.463	.391	.305
05P47	.47	50	.375 x 1.062	1.415	.849	.538	.453	.353
05P5	.50	50	.395 x 1.062	1.463	.877	.557	.468	.366
05P56	.56	50	.450 x 1.062	1.642	.986	.623	.526	.412
05P68	.68	50	.490 x 1.062	1.708	1.025	.649	.546	.428
05P82	.82	50	.505 x 1.062	1.794	1.076	.682	.574	.449
05W1	1.0	50	.500 x 1.375	2.041	1.225	.776	.653	.511
05W2	2.0	50	.600 x 1.625	3.37	2.022	1.280	1.079	.842
05W3	3.0	50	.730 x 1.625	4.468	2.681	1.697	1.429	1.117
05W4	4.0	50	.760 x 1.875	5.560	3.336	2.113	1.779	1.390
05W5	5.0	50	.850 x 1.875	6.929	4.157	2.634	2.217	1.732
1D1	.001	100	.156 x .50	.600	.360	.228	.192	.151
1D12	.0012	100	.156 x .50	.600	.360	.228	.192	.151
1D15	.0015	100	.156 x .50	.600	.360	.228	.192	.151
1D18	.0018	100	.156 x .50	.600	.360	.228	.192	.151
1D22	.0022	100	.156 x .50	.600	.360	.228	.192	.151
1D27	.0027	100	.156 x .50	.600	.360	.228	.192	.151
1D33	.0033	100	.156 x .50	.600	.360	.228	.192	.151
1D39	.0039	100	.156 x .50	.600	.360	.228	.192	.151
1D47	.0047	100	.156 x .50	.600	.360	.228	.192	.151
1D50	.0050	100	.156 x .50	.600	.360	.228	.192	.151
1D56	.0056	100	.156 x .50	.600	.360	.228	.192	.151
1D68	.0068	100	.175 x .50	.600	.360	.228	.192	.151
1D82	.0082	100	.175 x .50	.600	.360	.228	.192	.151
1S1	.01	100	.200 x .50	.600	.360	.228	.192	.151
1S12	.012	100	.215 x .50	.600	.360	.228	.192	.151
1S15	.015	100	.235 x .50	.600	.360	.228	.192	.151
1S18	.018	100	.255 x .50	.600	.360	.228	.192	.151
1S22	.022	100	.275 x .625	.600	.360	.228	.192	.151
1S27	.027	100	.300 x .625	.600	.360	.228	.192	.151
1S33	.033	100	.300 x .625	.600	.360	.228	.192	.151
1S39	.039	100	.245 x .75	.600	.360	.228	.192	.151
1S47	.047	100	.265 x .75	.614	.368	.233	.196	.153
1S50	.050	100	.270 x .75	.621	.373	.236	.199	.156
1S56	.056	100	.270 x .75	.635	.381	.242	.202	.159
1S68	.068	100	.280 x .75	.649	.389	.247	.207	.163
1S82	.082	100	.270 x .875	.662	.398	.251	.213	.166
1P1	.1	100	.290 x .875	.676	.406	.256	.216	.170
1P12	.12	100	.315 x .875	.690	.414	.262	.221	.173
1P15	.15	100	.335 x .875	.704	.422	.268	.225	.177
1P18	.18	100	.350 x 1.0	.718	.430	.274	.229	.179
1P22	.22	100	.385 x 1.0	.738	.443	.281	.236	.185
1P27	.27	100	.380 x 1.125	.842	.505	.320	.269	.212
1P33	.33	100	.415 x 1.125	.966	.580	.367	.309	.242
1P39	.39	100	.460 x 1.125	1.111	.667	.422	.357	.277
1P47	.47	100	.475 x 1.125	1.283	.771	.488	.412	.322
1P5	.50	100	.495 x 1.25	1.352	.812	.513	.434	.338
1P56	.56	100	.520 x 1.25	1.490	.895	.566	.477	.373
1P68	.68	100	.570 x 1.25	1.691	1.014	.643	.541	.422
1P82	.82	100	.585 x 1.375	1.794	1.076	.682	.574	.449
1W1	1.0	100	.625 x 1.50	1.857	1.114	.706	.595	.465
1W1P25	1.25	100	.690 x 1.50	2.151	1.290	.818	.688	.538
1W1P5	1.5	100	.715 x 1.625	2.927	1.756	1.112	.936	.731
1W2	2.0	100	.800 x 1.625	3.255	1.953	1.236	1.042	.814
1W3	3.0	100	1.100 x 2.312	4.060	2.436	1.542	1.300	1.015
1W4	4.0	100	1.250 x 2.50	5.054	3.033	1.921	1.617	1.264
2D1	.001	200	.156 x .50	.600	.360	.228	.192	.151
2D15	.0015	200	.156 x .50	.600	.360	.228	.192	.151

***Larger Quantity Prices on Request**

CDE No. WMF	Cap., µF	WV DC	Size, In. Dia. x Lg.	Net Each, Lots of 1-24	25-99	100-499	500-999	1000-Up
2D22	.0022	200	.156 x .50	$0.600	$0.360	$0.228	$0.192	$0.151
2D33	.0033	200	.160 x .50	.600	.360	.228	.192	.151
2D47	.0047	200	.170 x .50	.600	.360	.228	.192	.151
2D68	.0068	200	.200 x .50	.600	.360	.228	.192	.151
2S1	.01	200	.230 x .50	.600	.360	.228	.192	.151
2S15	.015	200	.290 x .50	.600	.360	.228	.192	.151
2S22	.022	200	.275 x .625	.600	.360	.228	.192	.151
2S33	.033	200	.270 x .75	.635	.381	.242	.202	.159
2S47	.047	200	.320 x .75	.662	.398	.251	.213	.166
2S68	.068	200	.350 x .75	.690	.414	.262	.221	.173
2P1	.1	200	.410 x .875	.794	.476	.302	.254	.199
2P15	.15	200	.500 x .875	.897	.538	.340	.288	.225
2P22	.22	200	.500 x 1.125	1.118	.670	.426	.358	.281
2P33	.33	200	.550 x 1.125	1.394	.836	.530	.446	.350
2P47	.47	200	.600 x 1.25	1.691	1.014	.643	.541	.422
2P68	.68	200	.650 x 1.625	2.415	1.449	.918	.773	.604
2W1	1.0	200	.750 x 1.75	3.059	1.835	1.163	.979	.765
2W1P25	1.25	200	.825 x 1.75	3.255	1.953	1.236	1.042	.814
2W1P5	1.5	200	.900 x 1.75	3.611	2.167	1.372	1.156	.903
2W2	2.0	200	.980 x 1.875	4.146	2.487	1.576	1.327	1.036
4D1	.001	400	.156 x .625	.669	.401	.254	.214	.167
4D15	.0015	400	.156 x .625	.669	.401	.254	.214	.167
4D22	.0022	400	.156 x .625	.669	.401	.254	.214	.167
4D33	.0033	400	.190 x .625	.669	.401	.254	.214	.167
4D47	.0047	400	.200 x .625	.669	.401	.254	.214	.167
4D68	.0068	400	.250 x .625	.669	.401	.254	.214	.167
4S1	.01	400	.300 x .625	.669	.401	.254	.214	.167
4S15	.015	400	.360 x .625	.669	.401	.254	.214	.167
4S22	.022	400	.320 x .75	.676	.406	.256	.216	.170
4S33	.033	400	.350 x .875	.704	.422	.268	.225	.177
4S47	.047	400	.400 x .875	.780	.468	.297	.250	.194
4S68	.068	400	.390 x 1.0	.863	.518	.329	.276	.215
4P1	.1	400	.465 x 1.0	1.152	.691	.437	.368	.289
4P15	.15	400	.515 x 1.25	1.449	.869	.551	.463	.363
4P22	.22	400	.565 x 1.375	1.616	.969	.614	.518	.404
4P33	.33	400	.600 x 1.625	1.978	1.187	.752	.633	.495
4P47	.47	400	.700 x 1.625	2.300	1.380	.874	.736	.575
4P68	.68	400	.790 x 1.75	2.921	1.753	1.110	.935	.730
4W1	1.0	400	.875 x 2.0	3.703	2.222	1.408	1.185	.926
4W1P25	1.25	400	.950 x 2.0	3.933	2.360	1.495	1.258	.983
4W1P5	1.5	400	.975 x 2.25	4.175	2.505	1.586	1.336	1.044
4W2	2.0	400	1.250 x 2.25	6.624	3.974	2.517	2.119	1.656
6D1	.001	600	.170 x .75	.766	.460	.291	.246	.192
6D15	.0015	600	.170 x .75	.766	.460	.291	.246	.192
6D22	.0022	600	.187 x .75	.766	.460	.291	.246	.192
6D33	.0033	600	.203 x .75	.766	.460	.291	.246	.192
6D47	.0047	600	.234 x .75	.766	.460	.291	.246	.192
6D68	.0068	600	.265 x .75	.766	.460	.291	.246	.192
6S1	.01	600	.290 x .75	.814	.489	.309	.261	.205
6S15	.015	600	.312 x .875	.973	.584	.370	.312	.243
6S22	.022	600	.335 x .875	1.235	.741	.469	.394	.309
6S33	.033	600	.350 x 1.0	1.497	.898	.568	.478	.374
6S47	.047	600	.415 x 1.0	1.616	.969	.614	.518	.404
6S68	.068	600	.500 x 1.0	1.696	1.018	.645	.543	.424
6P1	.1	600	.520 x 1.375	1.915	1.149	.728	.613	.478
6P15	.15	600	.625 x 1.375	2.151	1.290	.818	.688	.538
6P22	.22	600	.660 x 1.625	2.415	1.449	.918	.773	.604
6P33	.33	600	.687 x 2.0	2.714	1.628	1.032	.868	.679
6P47	.47	600	.855 x 2.0	3.678	2.207	1.398	1.178	.919
6P68	.68	600	.970 x 2.0	4.595	2.758	1.746	1.471	1.150
6W1	1.0	600	1.165 x 2.50	6.893	3.307	2.095	1.764	1.379
6W1P25	1.5	600	1.275 x 3.0	5.948	3.568	2.261	1.903	1.488
6W2	2.0	600	1.460 x 3.0	9.011	5.407	3.424	2.884	2.254

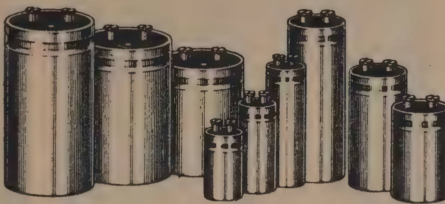
WRITE US FOR INFORMATION AND PRICING ON ALL NEW OR

UNLISTED ITEMS. NO SPECIAL ORDER NUMBERS NECESSARY,

JUST USE THE MANUFACTURER'S MODEL NUMBERS.

MALLORY Computer Grade Capacitors

Operating life should exceed 10 years when used within stated parameters. Derating voltage and/or lowering operating temperature will extend life by a large factor. **Temp. Range:** −40° C to +85° C. **Tolerance:** 0-150 WVDC, −10 +75% (U); 151 WVDC up, −10 +50% (T). For complete specifications, ask for Form 4-304 (CG), 4-303 (CGS). Both classes are supplied with polyester film insulating sleeves and have "High-post" terminals with #10-32 screws. Type CGS also available with "Low-post" terminals. Physical mounting of these capacitors is usually done with Mallory VR clamps. The clamps, however, are not included with the capacitors. Order separately.



Mallory No. CG-	Cap., μF	WV DC	Size *	Net Each
602U010R3C	6,000	10	R3C	$ 5.25
103U010U3C	10,000	10	U3C	7.01
1352U010V3C	13,500	10	V3C	8.28
143U010R3C	14,000	10	R3C	5.70
213U010R4C	21,000	10	R4C	6.61
4352U010X4C	43,500	10	X4C	18.29
164U010X5L	160,000	10	X5L	25.36
252U015R2C	2,500	15	R2C	4.37
452U015R3C	4,500	15	R3C	5.79
642U015R4C	6,400	15	R4C	5.98
652U015R2C	6,500	15	R2C	4.67
802U015U3C	8,000	15	U3C	6.82
1052U015V3C	10,500	15	V3C	7.64
113U015U4C	11,000	15	U4C	7.95
123U015R3C	12,000	15	R3C	5.64
143U015V4C	14,000	15	V4C	9.89
183U015R4C	18,000	15	R4C	6.61
213U015U3C	21,000	15	U3C	7.13
273U015V3C	27,000	15	V3C	8.46
343U015X4C	34,000	15	X4C	17.56
403U015V4C	40,000	15	V4C	10.49
533U015X5L	53,000	15	X5L	21.93
144U015X5L	140,000	15	X5L	25.27
152U025R2C	1,500	25	R2C	4.00
282U025R3C	2,800	25	R3C	5.28
332U025R2C	3,300	25	R2C	5.43
382U025R4C	3,800	25	R4C	6.19
452U025U3C	4,500	25	U3C	6.67
602U025V3C	6,000	25	V3C	7.80
632U025R3C	6,300	25	R3C	5.88
852U025V4C	8,500	25	V4C	8.71
922U025R4C	9,200	25	R4C	6.86
103U025U3C	10,000	25	U3C	7.58
133U025V3C	13,000	25	V3C	8.86
1352U025W4C	13,500	25	W4C	13.29
203U025V4C	20,000	25	V4C	10.77
203U025X4C	20,000	25	X4C	18.32
323U025W4C	32,000	25	W4C	15.47
483U025X4C	48,000	25	X4C	20.02
112U035R2C	1,100	35	R2C	5.22
212U035R3C	2,100	35	R3C	5.40
232U035R2C	2,300	35	R2C	5.61
362U035U3C	3,600	35	U3C	7.19
432U035R3C	4,300	35	R3C	6.04
472U035V3C	4,700	35	V3C	8.19
532U035U4C	5,300	35	U4C	8.89
692U035V4C	6,900	35	V4C	10.59
952U035V3C	9,500	35	V3C	9.28
113U035U4C	11,000	35	U4C	9.19
113U035W4C	11.000	35	W4C	14.56
143U035V4C	14,000	35	V4C	11.07
223U035W4C	22,000	35	W4C	15.77
243U035X5L	24,000	35	X5L	20.53
333U035X4C	33,000	35	X4C	20.35
493U035X5L	49,000	35	X5L	26.48
801U050R2C	800	50	R2C	4.76
152U050R2C	1,500	50	R2C	5.07
152U050R3C	1,500	50	R3C	5.28
202U050R4C	2,000	50	R4C	6.19
252U050U3C	2,500	50	U3C	6.82
292U050R3C	2,900	50	R3C	6.01
332U050V3C	3,300	50	V3C	8.13
432U050R4C	4,300	50	R4C	8.01
452U050V4C	4,500	50	V4C	9.19
502U050U3C	5,000	50	U3C	7.86
652U050V3C	6,500	50	V3C	9.28
732U050W4C	7,300	50	W4C	12.83
742U050U4C	7,400	50	U4C	9.34
952U050V4C	9,500	50	V4C	10.89
103U050X4C	10,000	50	X4C	16.65
153U050W4C	15,000	50	W4C	15.89
1652U050X5L	16,500	50	X5L	20.44
223U050X4C	22,000	50	X4C	20.26
333U050X5L	33,000	50	X5L	26.36
601U075R2C	600	75	R2C	4.94
801U075R2C	800	75	R2C	4.97
102U075R3C	1,000	75	R3C	5.22
152U075R3C	1,500	75	R3C	5.85
152U075R4C	1,500	75	R4C	6.82
202U075U3C	2,000	75	U3C	6.89
222U075R4C	2,200	75	R4C	7.28
252U075V3C	2,500	75	V3C	8.22
262U075U3C	2,600	75	U3C	7.52
262U075U4C	2,600	75	U4C	8.37
332U075V3C	3,300	75	V3C	8.98
3451U075V4C	3,450	75	V4C	9.98
492U075V4C	4,900	75	V4C	10.59
552U075W4C	5,500	75	W4C	16.62
792U075W4C	7,900	75	W4C	14.77
822U075X4C	8,200	75	X4C	16.11
113U075X4C	11,000	75	X4C	24.54
1252U075X5L	12,500	75	X5L	26.75
173U075X5L	17,000	75	X5L	31.12
401U100R2C	400	100	R2C	5.13
771U100R3C	770	100	R3C	6.01
102U100R4C	1,000	100	R4C	7.19
112U100R4C	1,100	100	R4C	7.31
132U100U3C	1,300	100	U3C	8.43
172U100U4C	1,700	100	U4C	9.74
2251U100V4C	2,250	100	V4C	11.80
252U100V4C	2,500	100	V4C	13.22
362U100W4C	3,600	100	W4C	17.20
402U100W4C	4,000	100	W4C	18.35
532U100X4C	5,300	100	X4C	24.54
592U100X4C	5,900	100	X4C	24.75
832U100X5L	8,300	100	X5L	30.30
2750U150R2C	275	150	R2C	5.16
501U150R3C	500	150	R3C	6.19
701U150R4C	700	150	R4C	7.13
1151U150U4C	1,500	150	U4C	9.58
1551U150V4C	1,150	150	V4C	11.98
252U150W4C	2,500	150	W4C	17.26
362U150X4C	3,600	150	X4C	24.72
562U150X5L	5,600	150	X5L	32.03
181T200R2C	180	200	R2C	4.79
341T200R3C	340	200	R3C	5.88
451T200R4C	450	200	R4C	6.67
551T200U3C	550	200	U3C	7.64
751T200V3C	750	200	V3C	9.16
102T200V4C	1,000	200	V4C	10.83
1651T200W4C	1,650	200	W4C	15.62
2451T200X4C	2,450	200	X4C	21.35
382T200X5L	3,800	200	X5L	29.45
141T250R2C	140	250	R2C	5.40
2750T250R3C	275	250	R3C	6.13
3750T250R4C	375	250	R4C	6.76
601T250V3C	600	250	V3C	9.46
801T250V4C	800	250	V4C	10.83
302T250X5L	3,000	250	X5L	29.36
2250T300R3C	225	300	R3C	6.07
3250T300R4C	325	300	R4C	7.04
5250T300V3C	525	300	V3C	9.71
701T300V4C	700	300	V4C	11.40
262T300X5L	2,600	300	X5L	31.18
101T350R2C	100	350	R2C	5.43
181T350R3C	180	350	R3C	6.19
251T350R4C	250	350	R4C	7.07
401T350V3C	400	350	V3C	9.65
551T350V4C	550	350	V4C	11.68
132T350X4C	1,300	350	X4C	22.63
202T350X5L	2,000	350	X5L	31.03
151T400R4C	150	400	R4C	6.67
3250T400V4C	325	400	V4C	10.34
531T400W4C	530	400	W4C	15.56
400T450R2C	40	450	R2C	4.55
111T450R4C	110	450	R4C	6.34
141T450U3C	140	450	U3C	7.64
241T450V4C	240	450	V4C	10.28
173U003R1N	17,000	3	R1N	4.70
253U003R2C	25,000	3	R2C	5.19
373U003R2L	37,000	3	R2L	5.67

*Case sizes on following page.

TYPE CGS

Mallory No. CGS-	Cap., μF	WV DC	Size *	Net Each
483U003R3C	48,000	3	R3C	6.04
573U003R3L	57,000	3	R3L	6.76
683U003R4C	68,000	3	R4C	7.25
803U003R4L	80,000	3	R4L	8.61
823U003V2L	82,000	3	V2L	9.80
104U003R5L	100,000	3	R5L	11.22
104U003V3C	100.000	3	V3C	12.01
124U003V3L	120,000	3	V3L	13.04
1253U003V3C	125,000	3	V3C	13.35
174U003V4C	170,000	3	V4C	13.65
184U003W3C	180,000	3	W3C	16.32
194U003W3C	190,000	3	W3C	16.53
214U003W3L	210,000	3	W3L	16.83
284U003W4C	280,000	3	W4C	20.75
294U003W4C	290,000	3	W4C	22.38
384U003W5C	380,000	3	W5C	24.81
394U003W5C	390,000	3	W5C	24.90
404U003X4C	400.000	3	X4C	25.54
544U003X5C	540,000	3	X5C	31.88
123U005R1N	12,000	5	R1N	4.79
183U005R2C	18,000	5	R2C	5.16
263U005R2L	26,000	5	R2L	5.67
353U005R3C	35,000	5	R3C	6.04
403U005R3L	40,000	5	R3L	6.82
503U005R4C	50,000	5	R4C	7.34
583U005V2L	58,000	5	V2L	9.62
653U005R5C	65,000	5	R5C	9.01
753U005V3C	75,000	5	V3C	11.65
903U005V3L	90,000	5	V3L	12.65
104U005V3L	100,000	5	V3L	12.86
124U005V4C	120,000	5	V4C	13.35
154U005W3L	150,000	5	W3L	17.47
164U005V5C	160,000	5	V5C	16.26
204U005W4C	200,000	5	W4C	19.08
264U005W5C	260,000	5	W5C	28.78
284U005X4C	280,000	5	X4C	24.96
384U005X5C	380,000	5	X5C	33.09
504U005X6L	500,000	5	X6L	53.75
722U010R2C	7,200	10	R2C	4.85
123U010R2C	12,000	10	R2C	4.97
133U010R3C	13,000	10	R3C	5.25
143U010R2C	14,000	10	R2C	5.40
203U010R2L	20,000	10	R2L	5.91
203U010R4C	20,000	10	R4C	6.04
263U010R3C	26,000	10	R3C	6.25
303U010V3C	30,000	10	V3C	7.25
333U010R4C	33,000	10	R4C	6.95
433U010R4L	43,000	10	R4L	8.52
443U010V4C	44,000	10	B4C	9.40
553U010R5L	55,000	10	R5L	10.10
583U010V3C	58,000	10	V3C	11.43
653U010V3C	65,000	10	V3C	12.22
763U010V4C	76,000	10	V4C	12.98
943U010V4C	94,000	10	V4C	14.01
114U010W3L	110,000	10	W3L	16.80
124U010W3L	120,000	10	W3L	18.05
144U010V5L	140,000	10	V5L	17.32
154U010W4C	150,000	10	W4C	21.38
154U010X3L	150,000	10	X3L	21.87
164U010W4C	160,000	10	W4C	21.57
184U010X3L	180,000	10	X3L	22.72
224U010X4C	220,000	10	X4C	25.75
234U010W5L	230,000	10	W5L	29.63
334U010X5L	330,000	10	X5L	35.46
394U010X6L	390,000	10	X6L	50.23
494U010X8L	490,000	10	X8L	51.83
552U015R2C	5,000	15	R2C	4.55
892U015R2C	8,900	15	R2C	4.97
103U015R2C	10,000	15	R2C	5.07
103U015R3C	10,000	15	R3C	5.25
123U015R2C	12,000	15	R2C	5.25
153U015R4C	15,000	15	R4C	6.01
173U015R3C	17,000	15	R3C	6.37
193U015R3C	19,000	15	R3C	6.64
213U015R3L	21,000	15	R3L	6.86
233U015V3C	23,000	15	V3C	7.80
243U015R3C	24,000	15	R3C	7.25
253U015R4C	25,000	15	R4C	7.52
253U015V2C	25,000	15	V2C	8.04
263U015R4C	26,000	15	R4C	8.10
343U015R4C	34,000	15	R4C	8.58
343U015R5C	34,000	15	R5C	9.07
343U015V4C	34,000	15	V4C	9.62
383U015V3C	38,000	15	V3C	9.92
503U015V3C	50,000	15	V3C	11.71
503U015V5L	50,000	15	V5L	11.04
553U015V3L	55,000	15	V3L	13.01
663U015V4C	66,000	15	V4C	13.89
703U015V4C	70,000	15	V4C	14.29
773U015V4L	77,000	15	V4L	15.41
803U015W3C	80,000	15	W3C	15.86
803U015X4C	80,000	15	X4C	16.68
833U015V5L	83,000	15	V5L	16.17
883U015V5C	88,000	15	V5C	16.38
104U015X5C	100,000	15	X5C	20.99
114U015W4C	110,000	15	W4C	19.35
124U015X3L	120,000	15	X3L	22.75
124U015X5R	120,000	15	X5R	23.54
1283U15X3L	128,000	15	X3L	22.90

Continued on Following Page

MALLORY Computer Grade Capacitors

COMPUTER GRADE (CONT.)

Mallory No. CGS-	Cap., µF	WV DC	Size *	Net Each
134U015W4L	130,000	15	W4L	$22.23
154U015X4C	150,000	15	X4C	25.54
1543U15X4C	154,000	15	X4C	26.02
184U015X4L	180,000	15	X4L	31.73
214U015X5R	210,000	15	X5R	35.70
302U025R2C	3,000	25	R2C	4.88
472U025R2C	4,700	25	R2C	5.34
562U025R3C	5,600	25	R3C	5.52
602U025R2C	6,000	25	R2C	5.58
822U025R4C	8,200	25	R4C	6.10
892U025R3C	8,900	25	R3C	6.40
103U025R3C	10,000	25	R3C	6.92
123U025V3C	12,000	25	V3C	7.64
133U025R4C	13,000	25	R4C	7.73
133U025V2C	13,000	25	V2C	7.89
143U025V2C	14,000	25	V2C	8.04
163U025R4C	16,000	25	R4C	8.34
183U025V4C	18,000	25	V4C	10.19
203U025R5C	20,000	25	R5C	9.65
203U025V3C	20,000	25	V3C	9.89
273U025V5L	27,000	25	V5L	11.89
283U025V3C	28,000	25	V3C	11.43
293U025V4C	29,000	25	V4C	12.50
303U025W3C	30,000	25	W3C	12.80
323U025V4C	32,000	25	V4C	13.41
403U025W3C	40,000	25	W3C	15.07
413U025V4C	41,000	25	V4C	15.86
433U025V5L	43,000	25	V5L	16.29
433U025X4C	43,000	25	X4C	17.53
463U025W3L	46,000	25	W3L	17.71
503U025V5L	50,000	25	V5L	17.35
503U025W3L	50,000	25	W3L	18.02
523U025V5C	52,000	25	V5C	17.71
573U025X5C	57,000	25	X5C	21.53
653U025W4C	65,000	25	W4C	20.50
653U025X3L	65,000	25	X3L	20.78
673U025X5R	67,000	25	X5R	23.84
703U025X4C	70,000	25	X4C	25.90
763U025X4C	76,000	25	X4C	27.12
853U025W5L	85,000	25	W5L	27.24
903U025W5L	90,000	25	W5L	27.87
923U025X5C	92,000	25	X5C	29.21
953U025X4C	95,000	25	X4C	30.79
114U025X5C	110,000	25	X5C	34.12
114U025X5L	110,000	25	X5L	34.97
114U025X5R	110,000	25	X5R	36.40
124U025X5C	120,000	25	X5C	39.70
194U025X8L	190,000	25	X8L	54.44
204U25X8L	200,000	25	X8L	64.39
452U030R2C	4,500	30	R2C	5.61
502U030R2C	5,000	30	R2C	5.95
802U030R3C	8,000	30	R3C	6.55
922U030R3C	9,200	30	R3C	7.07
123U030R4C	12,000	30	R4C	7.80
133U030R4C	13,000	30	R4C	7.98
153U030R4L	15,000	30	R4L	9.10
183U030R5L	18,000	30	R5L	10.01
203U030R5L	20,000	30	R5L	10.80
303U030V4C	30,000	30	V4C	13.95
333U030V4C	33,000	30	V4C	15.32
453U030V5L	45,000	30	V5L	17.99
503U030V5L	50,000	30	V5L	19.41
553U030W4C	55,000	30	W4C	20.75
703U030W5L	70,000	30	W5L	26.96
703U030X4C	70,000	30	X4C	26.11
783U030X4C	78,000	30	X4C	31.85
104U030X5L	100,000	30	X5L	35.91
1163U30X5L	116,000	30	X5L	44.13
164U030X8L	160,000	30	X8L	55.50
1783U30X8L	178,000	30	X8L	62.94
442U035R2C	4,400	35	R2C	5.73
822U035R3C	8,200	35	R3C	6.52
103U035X2C	10,000	35	X2C	7.19
123U035R4C	12,000	35	R4C	8.25
213U035V3C	21,000	35	V3C	11.28
303U035W3C	30,000	35	W3C	13.38
313U035V4C	31,000	35	V4C	15.53
453U035W4C	45,000	35	W4C	17.05
483U035X3L	48,000	35	X3L	22.57
703U035X4C	70,000	35	X4C	28.33
222U040R2C	2,200	40	R2C	4.88
272U040R2C	2,700	40	R2C	5.19
352U040R2C	3,500	40	R2C	5.64
422U040R3C	4,200	40	R3C	6.19
512U040R3C	5,100	40	R3C	6.28
602U040R3C	6,000	40	R3C	6.55
622U040R4C	6,200	40	R4C	6.92
662U040R3C	6,600	40	R3C	7.10
752U040R4C	7,500	40	R4C	7.43
902U040R4C	9,000	40	R4C	7.83
932U040R4C	9,300	40	R4C	8.04
932U040V3C	9,300	40	V3C	8.31
113U040V3C	11,000	40	V3C	9.31
133U040R5L	13,000	40	R5L	10.83
133U040V4C	13,000	40	V4C	10.22
173U040V3C	17,000	40	V3C	10.80
173U040V4C	17,000	40	V4C	11.89
203U040V5L	20,000	40	V5L	12.74
233U040V4C	23,000	40	V4C	15.04
323U040V4C	32,000	40	V4C	17.93
353U040V5L	35,000	40	V5L	18.29
403U040W4C	40,000	40	W4C	21.11
403U040X4C	40,000	40	X4C	21.47
433U040X5C	43,000	40	X5C	25.93
503U040X5R	50,000	40	X5R	26.18
533U040X5C	53,000	40	X5C	26.57
553U040W5L	55,000	40	W5L	26.63
553U040X4C	55,000	40	X4C	27.30
743U040X5C	74,000	40	X5C	32.73
783U040X6L	78,000	40	X6L	34.79
803U040X5L	80,000	40	X5L	34.55
833U040X5L	83,000	40	X5L	43.34
883U040X5R	88,000	40	X5R	43.34
913U040X6L	91,000	40	X6L	50.99
1253U40X8L	125,000	40	X8L	57.72
162U050R2C	1,600	40	R2C	4.88
222U050R2C	2,200	40	R2C	5.16
292U050R3C	2,900	40	R3C	6.16
302U050R2C	3,000	40	R2C	5.64
412U050R3C	4,100	40	R3C	6.31
432U050R4C	4,300	50	R4C	6.43
492U050R3L	4,900	50	R3L	6.58
502U050R3C	5,000	50	R3C	6.67
572U050R3C	5,700	50	R3C	7.16
612U050R4C	6,100	50	R4C	7.19
652U050V3C	6,500	50	V3C	8.83
672U050R3L	6,700	50	R3L	8.07
752U050R4C	7,500	50	R4C	8.19
802U050R4C	8,000	50	R4C	8.43
802U050V2C	8,000	50	V2C	9.28
962U050V4C	9,600	50	V4C	9.89
123U050R5L	12,000	50	R5L	10.37
133U050V3C	13,000	50	V3C	10.92
133U050V4C	13,000	50	V4C	11.95
143U050V5L	14,000	50	V5L	12.92
1452U50V3C	14,000	50	V3C	12.16
153U050V4C	15,000	50	V4C	12.53
203U050V4C	20,000	50	V4C	14.56
203U050V5L	20,000	50	V5L	15.80
223U050X4C	22,000	50	X4C	20.93
243U050W3C	24,000	50	W3C	18.29
253U050V5C	25,000	50	V5C	17.65
253U050W4C	25,000	50	W4C	18.96
283U050V5C	28,000	50	V5C	17.93
303U050V5L	30,000	50	V5L	18.23
303U050X5C	30,000	50	X5C	23.45
313U050W4C	31,000	50	W4C	20.75
333U050X4C	33,000	50	X4C	23.93
353U050X5R	35,000	50	X5R	24.96
363U050W4C	36,000	50	W4C	25.78
363U050X4C	36,000	50	X4C	26.11
383U050X3L	38,000	50	X3L	26.87
413U050X4L	41,000	50	X4L	27.72
433C050X5C	43,000	50	X5C	27.75
483U050X4C	48,000	50	X4C	27.60
503U050W5L	50,000	50	W5L	28.60
553U050X4L	55,000	50	X4L	32.39
563U050X4L	56,000	50	X4L	32.76
603U050X5C	60,000	50	X5C	33.36
633U050X6L	63,000	50	X6L	35.40
643U050X5C	64,000	50	X5C	35.58
703U050X5L	70,000	50	X5L	34.55
723U050X5L	72,000	50	X5L	42.58
793U050X6L	79,000	50	X6L	48.77
104U050X8L	100,000	50	X8L	54.96
1083U050X8L	108,000	50	X8L	60.84
821U075R2C	820	75	R2C	4.76
112U075R2C	1,100	75	R2C	5.07
152U075R2C	1,500	75	R2C	5.28
152U075R3C	1,500	75	R3C	5.58
212U075R3C	2,100	75	R3C	6.01
232U075R4C	2,300	75	R4C	6.16
292U075R3C	2,900	75	R3C	6.86
312U075R4C	3,100	75	R4C	7.22
342U075V3C	3,400	75	V3C	8.64
422U075R4C	4,200	75	R4C	8.40
482U075V3C	4,800	75	V3C	9.74
502U075V4C	5,000	75	V4C	11.74
632U075R5L	6,300	75	R5L	11.25
712U075V4C	7,100	75	V4C	11.80
732U075V3C	7,300	75	V3C	11.95
752U075V5L	7,500	75	V5L	13.41
103U075V4C	10,000	75	V4C	14.38
123U075X4C	12,000	75	X4C	22.48
153U075V5L	15,000	75	V5L	19.65
173U075W4C	17,000	75	W4C	22.44
173U075X4C	17,000	75	X4C	22.90
253U075W5L	25,000	75	W5L	30.39
253U075X4C	25,000	75	X4C	31.42
263U075X5R	26,000	75	X5R	32.21
373U075X5L	37,000	75	X5L	42.52
553U075X8L	55,000	75	X8L	63.69
851U100R2C	850	100	R2C	5.61
871U100R2C	870	100	R2C	5.95
122U100R3C	1,200	100	R3C	6.79
172U100R3C	1,700	100	R3C	6.98
182U100R4C	1,800	100	R4C	7.40
242U100R4C	2,400	100	R4C	7.92
312U100R5C	3,100	100	R5C	8.61
402U100V4C	4,000	100	V4C	12.25
602U100V4C	6,000	100	V4C	15.10
902U100V5L	9,000	100	V5L	20.44
103U100W4C	10,000	100	W4C	23.54
153U100W5L	15,000	100	W5L	32.51
153U100X4C	15,000	100	X4C	32.82
213U100X5L	21,000	100	X5L	43.37
333U100X8L	33,000	100	X8L	63.69
401U150R2C	400	150	R2C	5.22
501U150R2C	500	150	R2C	5.61
721U150R3C	720	150	R3C	6.46
951U150R3C	950	150	R3C	6.95
112U150R4C	1,100	150	R4C	8.04
132U150R3C	1,300	150	R3C	9.19
172U150V3C	1,700	150	V3C	11.43
182U150R5C	1,800	150	R5C	11.47
242U150V3C	2,400	150	V3C	13.95
242U150V4C	2,400	150	V4C	14.13
332U150V5C	3,300	150	V5C	17.26
352U150V5L	3,500	150	V5L	17.44
402U150V4L	4,000	150	V4L	17.29
482U150W4L	4,800	150	W4L	23.66
512U150V5L	5,100	150	V5L	23.05
522U150W4C	5,200	150	W4C	23.78
552U150W5C	5,500	150	W5C	27.36
572U150X4C	5,700	150	X4C	30.15
622U150W5L	6,200	150	W5L	30.60
672U150X4L	6,700	150	X4L	32.48
702U150W5C	7,000	150	W5C	30.91
742U150X5C	7,400	150	X5C	32.70
772U150X5C	7,700	150	X5C	37.73
802U150W5L	8,000	150	W5L	39.16
862U150X5L	8,600	150	X5L	41.28
872U150X5R	8,700	150	X5R	41.55
103U150X5C	10,000	150	X5C	41.34
123U150X5L	12,000	150	X5L	47.38
301T200R2C	300	200	R2C	5.55
321T200R2C	320	200	R2C	6.28
591T200R3C	590	200	R3C	6.86
851T200R4C	850	200	R4C	8.49
901T200R4L	900	200	R4L	8.67
102T200R5C	1,000	200	R5C	10.01
122T200R5L	1,200	200	R5L	10.46
142T200V3C	1,400	200	V3C	11.86
162T200V3C	1,600	200	V3C	12.44
202T200V4C	2,000	200	V4C	14.92
222T200V4C	2,200	200	V4C	15.35
302T200V5C	3,000	200	V5C	17.23
302T200V5L	3,000	200	V5L	19.62
342T200W4C	3,400	200	W4C	22.81
462T200X4C	4,600	200	X4C	23.96
502T200W5C	5,000	200	W5C	30.60
742T200X5L	7,400	200	X5L	39.04
772T200X5L	7,700	200	X5L	44.52

CGS Case Sizes	Dia. × L., Inches	Mtg. Clamp
R1N	1 3/8 × 1 3/4	VR3†
R2C	1 3/8 × 2 1/8	VR3†
R2L	1 3/8 × 2 5/8	VR3†
R3C	1 3/8 × 3 1/8	VR3†
R3L	1 3/8 × 3 5/8	VR3†
R4C	1 3/8 × 4 1/8	VR3†
R4L	1 3/8 × 4 5/8	VR3†
R5C	1 3/8 × 5 1/8	VR3†
R5L	1 3/8 × 5 5/8	VR3†
U2C	1 3/4 × 2 1/8	VR6‡
U2L	1 3/4 × 2 5/8	VR6‡
U3C	1 3/4 × 3 1/8	VR6‡
U4C	1 3/4 × 4 1/8	VR6‡
U4L	1 3/4 × 4 5/8	VR6‡
U5C	1 3/4 × 5 1/8	VR6‡
U5L	1 3/4 × 5 5/8	VR6‡
V2L	2 × 2 5/8	VR8§
V3C	2 × 3 1/8	VR8§
V3L	2 × 3 5/8	VR8§
V4C	2 × 4 1/8	VR8§
V4L	2 × 4 5/8	VR8§
V5C	2 × 5 1/8	VR8§
V5L	2 × 5 5/8	VR8§
W3C	2 1/2 × 3 1/8	VR10#
W3L	2 1/2 × 3 5/8	VR10#
W4C	2 1/2 × 4 1/8	VR10#
W4L	2 1/2 × 4 5/8	VR10#
W5C	2 1/2 × 5 1/8	VR10#
W5L	2 1/2 × 5 5/8	VR10#
X3L	3 × 3 5/8	VR12▲
X4C	3 × 4 1/8	VR12▲
X4L	3 × 4 5/8	VR12▲
X5C	3 × 5 1/8	VR12▲
X5L	3 × 5 5/8	VR12▲
X5R	3 × 5 7/8	VR12▲
X6L	3 × 6 5/8	VR12▲
X8L	3 × 8 5/8	VR12▲

Net Each: †$0.37; ‡$0.53; §$0.59; #$0.62; ▲$0.72.

LISTING CONTINUED ON FOLLOWING PAGE

MALLORY Computer Grade Capacitors

Mallory No. CGS-	Cap., µF	WV DC	Size *	Net Each
201T250R2C	200	250	R2C	$ 5.04
221T250R2C	220	250	R2C	5.34
251T250R2C	250	250	R2C	5.55
381T250R3C	380	250	R3C	6.73
501T250R3L	500	250	R3L	7.01
551T250R4C	550	250	R4C	7.37
701T250R4C	700	250	R4C	8.71
851T250V3C	850	250	V3C	9.80
102T250R5L	1.000	250	R5L	10.13
122T250V3C	1,200	250	V3C	10.59
122T250V4C	1,200	250	V4C	12.13
172T250V4C	1,700	250	V4C	16.05
192T250V5L	1.900	250	V5L	16.53
202T250W3L	2,000	250	W3L	19.41
212T250W4C	2,100	250	W4C	19.96
252T250V5L	2.500	250	V5L	20.05
292T250W4L	2,900	250	W4L	24.87
292T250X4C	2,900	250	X4C	25.63
392T250X5C	3,900	250	X5C	31.70
422T250W5L	4,200	250	W5L	32.79
602T250X5L	6,000	250	X5L	43.65
151T300R2C	150	300	R2C	5.34
161T300R2C	160	300	R2C	5.73
301T300R3C	300	300	R3C	6.58
311T300R3C	310	300	R3C	7.01
401T300R4C	400	300	R4C	7.92
501T300R4L	500	300	R4L	8.49
551T300R5C	550	300	R5C	9.34

Mallory No. CGS-	Cap., µF	WV DC	Size *	Net Each
801T300V3C	800	300	V3C	$11.62
102T300V4C	1,000	300	V4C	14.80
112T300V4C	1,100	300	V4C	14.92
132T300V4L	1,300	300	V4L	15.80
152T300V5C	1,500	300	V5C	17.90
162T300W4C	1,600	300	W4C	21.78
172T300V5L	1,700	300	V5L	19.56
192T300W4L	1,900	300	W4L	23.02
202T300W4L	2,000	300	W4L	23.38
212T300W5C	2,100	300	W5C	25.87
252T300W5L	2.500	300	W5L	29.42
252T300X4C	2,500	300	X4C	30.76
312T300X5C	3,100	300	X5C	36.28
352T300X5L	3,500	300	X5L	39.82
402T300X5L	4,000	300	X5L	40.28
131T350R2C	130	350	R2C	5.22
141T350R2C	140	350	R2C	5.61
251T350R3C	250	350	R3C	6.73
271T350R3C	270	350	R3C	7.04
371T350R4C	370	350	R4C	7.76
381T350R4C	380	350	R4C	9.43
431T350R4L	430	350	R4L	9.80
581T350R5L	580	350	R5L	10.37
651T350V3C	650	350	V3C	11.74
701T350V3C	700	350	V3C	12.04
801T350V4C	800	350	V4C	13.56
102T350V4C	1,000	350	V4C	15.01
112T350W3C	1,100	350	W3C	18.08

Mallory No. CGS-	Cap., µF	WV DC	Size *	Net Each
132T350V5L	1,300	350	V5L	$19.26
152T350W4C	1,500	350	W4C	23.08
212T350X4C	2,100	350	X4C	27.30
222T350W5L	2,200	350	W5L	31.18
302T350X5R	3,000	350	X5R	38.37
332T350X5L	3,300	350	X5L	39.04
342T350X5L	3,400	350	X5L	43.31
750T450R2C	75	450	R2C	5.19
101T450R2C	100	450	R2C	5.55
141T450R3C	140	450	R3C	6.43
171T450R3C	170	450	R3C	6.95
211T450R4C	210	450	R4C	8.28
251T450R4C	250	450	R4C	8.98
321T450V3C	320	450	V3C	10.25
351T450R5C	350	450	R5C	9.52
401T450R5L	400	450	R5L	10.37
451T450V3C	450	450	V3C	12.28
481T450V4C	480	450	V4C	13.32
651T450V4C	650	450	V4C	14.80
801T450V4L	800	450	V4L	16.08
102T450W4C	1,000	450	W4C	23.48
112T450X4C	1,100	450	X4C	25.87
142T450W5C	1,400	450	W5C	30.24
152T450X4C	1,500	450	X4C	34.12
152T450X5C	1,500	450	X5C	34.85
182T450X5R	1,800	450	X5R	38.76
202T450X5C	2,000	450	X5C	39.91
242T450X5L	2,400	450	X5L	42.95

*Case sizes on preceding page.

CS12, CS13 AND TAS SOLID ELECTROLYTE TANTALUM CAPACITORS

Ultra-miniature capacitors designed to withstand the most difficult environmental conditions. Furnished in hermetically sealed metal cases. Temperature range: −80° C to +85° C (to +125° C with derating). TAS commercial types 6 through 50 WVDC are shown on this page. CS12/13 types to MIL-C-26655B are shown on next page. **TAS ORDERING INFORMATION:** Are specified by a 13-digit part number. **Tolerance:** Specify **K** for ±10% or **M** for ±20%. **Insulating Sleeve:** TAS types are listed with uninsulated cases; for insulating sleeve, change 12th digit of part number from **0** to **1** and add **2c** to prices shown. **Case Sizes:** TAS sizes are indicated by the last digit in the part number (**A, C, F, & G**). See price table below. **CS12/13 ORDERING INFORMATION:** Shown on another page to MIL-C-26655B. Prices are shown below by case code. **Tolerance:** Specify **K** for ±10% or **M** for ±20%. **Insulating Sleeve:** Uninsulated CS12 types are shown. For insulating sleeve, specify **CS13** and add **2c** to prices shown. **Case Sizes:** Shown below by code letter in listing, see price table below.

STOCK VALUES—TAS TYPES

Cap., µF	6 WVDC Mallory No.† TAS-	10 WVDC Mallory No.† TAS-	15 WVDC Mallory No.† TAS-	20 WVDC Mallory No.† TAS-	35 WVDC Mallory No.† TAS-	50 WVDC Mallory No.† TAS-
.056	563K006P0A	563K010P0A	563K015P0A	563K020P0A	563K035P0A	563K050P0A
.068	683*006P0A	683*010P0A	683*015P0A	683*020P0A	683*035P0A	683*050P0A
082	823K006P0A	823K010P0A	823K015P0A	823K020P0A	823K035P0A	823K050P0A
.10	104*006P0A	104*010P0A	104*015P0A	104*020P0A	104*035P0A	104*050P0A
.12	124K006P0A	124K010P0A	124K015P0A	124K020P0A	124K035P0A	124K050P0A
.15	154*006P0A	154*010P0A	154*015P0A	154*020P0A	154*035P0A	154*050P0A
18	184K006P0A	184K010P0A	184K015P0A	184K020P0A	184K035P0A	184K050P0A
.22	224*006P0A	224*010P0A	224*015P0A	224*020P0A	224*035P0A	224*050P0A
.27	274K006P0A	274K010P0A	274K015P0A	274K020P0A	274K035P0A	274K050P0A
.33	334*006P0A	334*010P0A	334*015P0A	334*020P0A	334*035P0A	334*050P0A
.39	394K006P0A	394K010P0A	394K015P0A	394K020P0A	394K035P0A	394K050P0A
.47	474*006P0A	474*010P0A	474*015P0A	474*020P0A	474*035P0A	474*050P0A
.56	564K006P0A	564K010P0A	564K015P0A	564K020P0A	564K035P0A	564K050P0A
.68	684*006P0A	684*010P0A	684*015P0A	684*020P0A	684*035P0A	684*050P0A
.82	824K006P0A	824K010P0A	824K015P0A	824K020P0A	824K035P0A	824K050P0A
1.0	105*006P0A	105*010P0A	105*015P0A	105*020P0A	105*035P0A	105*050P0A *
1.2	125K006P0A	125K010P0A	125K015P0A	125K020P0A *	125K035P0C	125K050P0C
1.5	155*006P0A	155*010P0A	155*015P0A	155*020P0A	155*035P0C	155*050P0C
1.8	185K006P0A	185K010P0A	185K015P0A	185K020P0A *	185K035P0C	185K050P0C
2.2	225*006P0A	225*010P0A	225*015P0A	225*020P0A *	225*035P0C	225*050P0C
2.7	275K006P0A	275K010P0A	275K015P0A *	275K020P0C	275K035P0C	275K050P0C
3.3	335*006P0A	335*010P0A	335*015P0A	335*020P0C	335*035P0C	335*050P0C
3.9	395K006P0A	395K010P0A *	395K015P0C	395K020P0C	395K035P0C	395K050P0C
4.7	475*006P0A	475*010P0A *	475*015P0C	475*020P0C	475*035P0C	475*050P0C
5.6	565K006P0A *	565K010P0C	565K015P0C	565K020P0C	565K035P0C *	565K050P0F
6.8	685*006P0A *	685*010P0C	685*015P0C	685*020P0C	685*035P0C *	685*050P0F
8.2	825K006P0C	825K010P0C	825K015P0C	825K020P0C *	825K035P0F *	825K050P0F
10	106*006P0C	106*010P0C	106*015P0C	106*020P0C *	106*035P0F	106*050P0F
12	126K006P0C	126K010P0C	126K015P0C	126K020P0C *	126K035P0F	126K050P0F *
15	156*006P0C	156*010P0C	156*015P0C	156*020P0C *	156*035P0F	156*050P0F *
18	186K006P0C	186K010P0C	186K015P0C *	186K020P0F	186K035P0F	186K050P0F *
22	226*006P0C	226*010P0C	226*015P0C *	226*020P0F	226*035P0F *	226*050P0G *
27	276K006P0C	276K010P0C *	276K015P0F	276K020P0F *	276K035P0G *	....
33	336*006P0C	336*010P0C *	336*015P0F	336*020P0F *	336*035P0G *	....
39	396K006P0C	396K010P0C *	396K015P0F	396K020P0F *	396K035P0G *	....
47	476*006P0C *	476*010P0F	476*015P0F	476*020P0F *	476*035P0G	....
56	566K006P0C *	566K010P0F	556K015P0F *	566K020P0G *	....	....
68	686*006P0F	686*010P0F	686*015P0F *	686*020P0G	686M035P0G *	....
82	826K006P0F	826K010P0F *	826K015P0G	826K020P0G *	....	....
100	107*006P0F	107*010P0F *	107*015P0G	107*020P0G *	....	....
120	127K006P0F	127K010P0F *	127K015P0G *	....	....	....
150	157*006P0F *	157*010P0G	157*015P0G *	....	....	....
180	187K006P0F *	187K010P0G *	....	....	....	....
220	227*006P0G	227*010P0G *	....	....	....	....
270	277K006P0G *	....	....	....	....	....
330	337*006P0G *	....	....	....	....	....

*Specify **K** for ±10% tolerance or **M** for ±20%. *Parent value; Max. WVDC vs. capacity, size and price. †Last letter indicates size; see pricing below.

CONTINUED ON FOLLOWING PAGE

MALLORY Tantalum Capacitors

TAS AND CS12/13 INDUSTRIAL NET PRICES

For types with insulating sleeve; add .010″ dia. and .036″ lg. for sleeve; add **2c** to prices shown.

Case Code	Case Size, Inches Dia. x L.	WVDC	For ±10% Tol. (K), Net Each				For ±20% Tol. (M), Net Each			
			1-49	50-99	100-499	500-Up	1-49	50-99	100-499	500-Up
FOR 6, 10, 15, 20 AND 35 WVDC										
A	.125 x .250	6, 10, 15, 20, 35	$ 1.00	$ 0.50	$ 0.40	$ 0.31	$ 0.95	$ 0.48	$ 0.38	$ 0.30
C	.175 x .438	6, 10, 15, 20, 35	2.00	1.00	.80	.62	1.95	.98	.78	.61
F	.279 x .650	6, 10, 15, 20, 35	6.05	3.03	2.42	1.88	5.90	2.95	2.36	1.83
G	.341 x .750	6, 10, 15, 20	11.25	5.63	4.50	3.49	11.10	5.55	4.44	3.44
		35	11.25	5.63	4.50	3.49	11.10	5.55	4.44	3.44
FOR 50 WVDC										
A	.125 x .250	50	$ 1.05	$0.53	$0.42	$0.33	$1.00	$0.50	$0.40	$0.31
C	.175 x .438	50	2.10	1.05	.84	.65	2.00	1.00	.80	.62
F	.279 x .650	50	6.20	3.10	2.48	1.92	6.05	3.03	2.42	1.88
G	.341 x .750	50	11.40	5.70	4.56	3.53	11.25	5.63	4.50	3.49

MIL-C-26655B, CS12 AND CS13

For bare metal case, order CS12 as listed. For insulating sleeve, specify CS13.

6 WVDC

Cap., µF	Mallory Number	Size
5.6	CS12BB565K	A
6.8	CS12BB685*	A
47	CS12BB476*	C
56	CS12BB566K	C
150	CS12BB157*	F
180	CS12BB187K	F
270	CS12BB277K	G
330	CS12BB337*	G

10 WVDC

Cap., µF	Mallory Number	Size
3.9	CS12BC395K	A
4.7	CS12BC475*	A
27	CS12BC276K	C
33	CS12BC336*	C
39	CS12BC396K	C
82	CS12BC826K	F
100	CS12BC107*	F
120	CS12BC127K	F
180	CS12BC187K	G
220	CS12BC227*	G

15 WVDC

Cap., µF	Mallory Number	Size
2.7	CS12BD275K	A
3.3	CS12BD335*	A
18	CS12BD186K	C
22	CS12BD226*	C
56	CS12BD566K	F
68	CS12BD686*	F
120	CS12BD127K	G
150	CS12BD157*	G

20 WVDC

Cap., µF	Mallory Number	Size
1.2	CS12BE125K	A
1.5	CS12BE155*	A
1.8	CS12BE185K	A
2.2	CS12BE225*	A
8.2	CS12BE825K	C
10	CS12BE106*	C
12	CS12BE126K	C
15	CS12BE156*	C
27	CS12BE276K	F
33	CS12BE336*	F
39	CS12BE396K	F
47	CS12BE476*	F
56	CS12BE566K	G
68	CS12BE686*	G
82	CS12BE826K	G
100	CS12BE107*	G

35 WVDC

Cap., µF	Mallory Number	Size
.33	CS12BF334*	A
.39	CS12BF394K	A
.47	CS12BF474*	A
.56	CS12BF564K	A
.68	CS12BF684*	A
.82	CS12BF824K	A
1.0	CS12BF105*	A
1.2	CS12BF125K	C
1.5	CS12BF155*	C
1.8	CS12BF185K	C
2.2	CS12BF225*	C
2.7	CS12BF275K	C
3.3	CS12BF335*	C
3.9	CS12BF395K	C
4.7	CS12BF475*	C
5.6	CS12BF565K	C
6.8	CS12BF685*	C
8.2	CS12BF825K	F
10	CS12BF106*	F
12	CS12BF126K	F
15	CS12BF156*	F
18	CS12BF186K	F
22	CS12BF226*	F
27	CS12BF276K	G
33	CS12BF336*	G
39	CS12BF396K	G
47	CS12BF476*	G

50 WVDC

Cap., µF	Mallory Number	Size
1.0	CS12BG105*	A
1.2	CS12BG125K	C
1.5	CS12BG155*	C
1.8	CS12BG185K	C
2.2	CS12BG225*	C
2.7	CS12BG275K	C
3.3	CS12BG335*	C
3.9	CS12BG395K	C
4.7	CS12BG475*	C
5.6	CS12BG565K	F
6.8	CS12BG685*	F
8.2	CS12BG825K	F
10	CS12BG106*	F
12	CS12BG126K	F
15	CS12BG156*	F
18	CS12BG186K	F
22	CS12BG226*	G

*Specify tolerance: **K** = ±10%; **M** = ±20%. For case sizes, see pricing table.

SEE PREVIOUS PAGE FOR PRICING, CASE SIZE AND ORDERING INFORMATION

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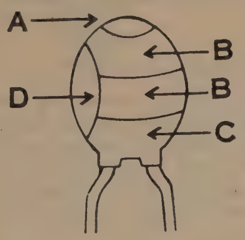
MALLORY Tantalum Capacitors

TDC SOLID ELECTROLYTE DIPPED TANTALUM CAPACITORS

Tolerances: ±10% and ±20%. **Sizes:** E, 0.175″ dia. x 0.350″ h.; F, 0.250″ dia. x 0.500″ h.; G, 0.350″ dia. x 0.650″ h.; H, 0.400″ dia. x 0.750″ h. **Color Codes: A,** Tolerance, see table at right. **B,** Capacitance in pF, 1st and 2nd significant figures. **C,** Capacitance multiplier (number of zeros), see table at right. **D,** Voltage (see table at right) and positive lead.



Mallory Number	Cap., µF	Tolerance ± %	Net Each
6 WVDC			
TDC685M006NLE	6.8	20	$ 0.70
TDC685K006NLE	6.8	10	.75
TDC476M006NLF	47	20	1.65
TDC476K006NLF	47	10	1.70
TDC157M006WLG	150	20	5.40
TDC157K006WLG	150	10	5.55
TDC337M006WLG	330	20	10.60
TDC337K006WLG	330	10	10.75
10 WVDC			
TDC475M010NLE	4.7	20	$ 0.70
TDC475K010NLE	4.7	10	.75
TDC565M010WLE	5.6	20	.70
TDC565K010NLE	5.6	10	.75
TDC226M010NLF	22	20	1.45
TDC226K010NLF	22	10	1.50
TDC276M010WLF	27	20	1.45
TDC276K010NLF	27	10	1.50
TDC336M010NLF	33	20	1.65
TDC336K010NLF	33	10	1.70
TDC396M010WLF	39	20	1.65
TDC396K010NLF	39	10	1.70
TDC476M010NLF	47	20	2.60
TDC476K010NLF	47	10	2.65
TDC107M010WLG	100	20	5.40
TDC107K010WLG	100	10	5.55
TDC157M010WLG	150	20	8.90
TDC157K010WLG	150	10	9.05
TDC227M010WLG	220	20	10.40
TDC227K010WLG	220	10	10.55
15 WVDC			
TDC335M015NLE	3.3	20	$ 0.70
TDC335K015NLE	3.3	10	.75
TDC395M015WLE	3.9	20	.70
TDC395K015NLE	3.9	10	.75
TDC565M015WLE	5.6	20	1.20
TDC565K015NLE	5.6	10	1.25
TDC106M015NLF	10	20	1.45
TDC106K015NLF	10	10	1.50
TDC126M015WLF	12	20	1.45
TDC126K015NLF	12	10	1.50
TDC156M015NLF	15	20	1.45
TDC156K015NLF	15	10	1.50
TDC186M015WLF	18	20	1.45
TDC186K015NLF	18	10	1.50
TDC226M015NLF	22	20	1.65
TDC226K015NLF	22	10	1.70
TDC686M015WLG	68	20	5.40
TDC686K015WLG	68	10	5.55
TDC157M015WLG	150	20	10.60
TDC157K015WLG	150	10	10.75
TDC187M015WLG	180	20	13.60
TDC187K015WLG	180	10	13.75
TDC227M015WLH	220	20	14.70
TDC227K015WLH	220	10	14.85
TDC277M015WLH	270	20	15.30
TDC277K015WLH	270	10	15.45
TDC337M015WLH	330	20	15.90
TDC337K015WLH	330	10	16.05
20 WVDC			
TDC225M020NLE	2.2	20	$0.70
TDC225K020NLE	2.2	10	.75
TDC275M020WLE	2.7	20	.70
TDC275K020NLE	2.7	10	.75
TDC335M020NLE	3.3	20	1.10
TDC335K020NLE	3.3	10	1.15
TDC395M020WLE	3.9	20	1.35
TDC395K020NLE	3.9	10	1.40
TDC106M020NLF	10	20	1.45
TDC106K020NLF	10	10	1.50
TDC126M020WLF	12	20	1.45
TDC126K020NLF	12	10	1.50
TDC156M020NLF	15	20	1.65
TDC156K020NLF	15	10	1.70
20 WVDC (CONTINUED)			
TDC226M020NLF	22	20	$ 2.80
TDC226K020NLF	22	10	2.85
TDC276M020WLF	27	20	3.25
TDC276K020NLF	27	10	3.30
TDC336M020WLG	33	20	5.40
TDC336K020WLG	33	10	5.55
TDC396M020WLG	39	20	5.40
TDC396K020WLG	39	10	5.55
TDC476M020WLG	47	20	5.40
TDC476K020WLG	47	10	5.55
TDC566M020WLG	56	20	8.50
TDC566K020WLG	56	10	8.65
TDC686M020WLG	68	20	8.60
TDC686K020WLG	68	10	8.75
TDC826M020WLG	82	20	9.10
TDC826K020WLG	82	10	9.25
TDC107M020WLG	100	20	9.75
TDC107K020WLG	100	10	9.90
TDC127M020WLG	120	20	10.25
TDC127K020WLG	120	10	10.40
TDC157M020WLH	150	20	15.30
TDC157K020WLH	150	10	15.45
TDC187M020WLH	180	20	15.90
TDC187K020WLH	180	10	16.05
25 WVDC			
TDC225M025NLE	2.2	20	$ 0.70
TDC225K025NLE	2.2	10	.75
TDC565M025WLF	5.6	20	1.55
TDC565K025NLF	5.6	10	1.60
TDC685M025NLF	6.8	20	1.55
TDC685K025NLF	6.8	10	1.60
TDC825M025WLF	8.2	20	1.55
TDC825K025NLF	8.2	10	1.60
TDC106M025NLF	10	20	1.65
TDC106K025NLF	10	10	1.70
TDC226M025NLF	22	20	4.10
TDC226K025NLF	22	10	4.15
TDC276M025WLG	27	20	5.40
TDC276K025WLG	27	10	5.55
TDC336M025WLG	33	20	5.40
TDC336K025WLG	33	10	5.55
TDC396M025WLG	39	20	8.80
TDC396K025WLG	39	10	8.95
TDC476M025WLG	47	20	9.20
TDC476K025WLG	47	10	9.35
TDC566M025WLG	56	20	9.60
TDC566K025WLG	56	10	9.75
TDC686M025WLG	68	20	10.60
TDC686K025WLG	68	10	10.75
TDC826M025WLG	82	20	11.00
TDC826K025WLG	82	10	11.15
TDC107M025WLG	100	20	11.50
TDC107K025WLG	100	10	11.65
TDC127M025WLH	120	20	15.30
TDC127K025WLH	120	10	15.45
TDC157M025WLH	150	20	15.90
TDC157K025WLH	150	10	16.05
35 WVDC			
TDC104M035NLE	.1	20	$ 0.70
TDC104K035NLE	.1	10	.75
TDC224M035NLE	.22	20	.70
TDC224K035NLE	.22	10	.75
TDC474M035NLE	.47	20	.70
TDC474K035NLE	.47	10	.75
TDC105M035NLE	1.0	20	.70
TDC105K035NLE	1.0	10	.75
35 WVDC (CONTINUED)			
TDC155M035NLE	1.5	20	$ 1.35
TDC155K035NLE	1.5	10	1.40
TDC225M035NLE	2.2	20	1.60
TDC225K035NLE	2.2	10	1.65
TDC335M035NLF	3.3	20	1.65
TDC335K035NLF	3.3	10	1.70
TDC395M035WLF	3.9	20	1.65
TDC395K035NLF	3.9	10	1.70
TDC475M035NLF	4.7	20	1.65
TDC475K035NLF	4.7	10	1.70
TDC685M035NLF	6.8	20	1.65
TDC685K035NLF	6.8	10	1.70
TDC106M035NLF	10	20	2.80
TDC106K035NLF	10	10	2.85
TDC156M035NLF	15	20	3.70
TDC156K035NLF	15	10	3.75
TDC226M035WLG	22	20	5.40
TDC226K035WLG	22	10	5.55
TDC336M035WLG	33	20	9.75
TDC336K035WLG	33	10	9.90
TDC396M035WLG	39	20	10.60
TDC396K035WLG	39	10	10.75
TDC476M035WLG	47	20	10.60
TDC476K035WLG	47	10	10.75
TDC566M035WLH	56	20	15.30
TDC566K035WLH	56	10	15.45
TDC686M035WLH	68	20	15.90
TDC686K035WLH	68	10	16.05
50 WVDC			
TDC104M050NLE	.1	20	$ 0.75
TDC104K050NLE	.1	10	.80
TDC154M050NLE	.15	20	.75
TDC154K050NLE	.15	10	.80
TDC222M050NLE	.22	20	.75
TDC224K050NLE	.22	10	.80
TDC334M050NLE	.33	20	.75
TDC334K050NLE	.33	10	.80
TDC474M050NLE	.47	20	.75
TDC474K050NLE	.47	10	.80
TDC684M050NLE	.68	20	.75
TDC684K050NLE	.68	10	.80
TDC105M050NLE	1.0	20	.75
TDC105K050NLE	1.0	10	.80
TDC155M050NLE	1.5	20	1.50
TDC155K050NLE	1.5	10	1.55
TDC225M050NLF	2.2	20	1.70
TDC225K050NLF	2.2	10	1.75
TDC335M050NLF	3.3	20	1.70
TDC335K050NLF	3.3	10	1.75
TDC475M050NLF	4.7	20	1.70
TDC475K050NLF	4.7	10	1.75
TDC685M050NLF	6.8	20	3.80
TDC685K050NLF	6.8	10	3.85
TDC106M050WLG	10	20	6.10
TDC106K050WLG	10	10	6.25
TDC156M050WLG	15	20	6.25
TDC156K050WLG	15	10	6.40
TDC226M050WLG	22	20	11.00
TDC226K050WLG	22	10	11.15
TDC276M050WLG	27	20	13.00
TDC276K050WLG	27	10	13.15
TDC336M050WLH	33	20	16.40
TDC336K050WLH	33	10	16.55

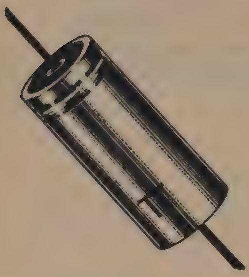
COLOR CODES

Color	Volts 85° C	Capacitance 1st Fig.	2nd Fig.	Multiplier	Tolerance
None	..	..	..	....	±20%
Silver	..	..	..	....	±10%
Gold	..	..	..	....	±5%
Black	4	0	0	....	......
Brown	6	1	1	....	......
Red	10	2	2	....	......
Orange	15	3	3	....	......
Yellow	20	4	4	x10^4	......
Green	25	5	5	x10^5	......
Blue	35	6	6	x10^6	......
Violet	50	7	7	x10^7	......
Gray	..	8	8	....	......
White	..	9	9	....	......

FOR THAT PERSONAL SERVICE, CALL OR WRITE US

MALLORY Electrolytic Capacitors

TT TINY TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS



Mallory TT capacitors are made from very high purity aluminum foil, deep-etched to provide maximum capacity per unit of volume. Etched cathode construction assures long, hum-free operation. Utilize all-welded construction; exhibit exceptionally low DCL and ESR. Supplied in aluminum case with insulating sleeve; wire leads 2″ lg. (±¼″). **Temperature Range:** −55° C to +85° C, 3 to 150-volt units; −30° C to +85° C, all others. **Tolerance:** −10%, +75%, 1–100 WVDC; −10%, +50%, 100 WVDC and up.

Mallory No. TT-	Cap., μF	WV DC	Size, In.* Dia. x L.	Net Each
3X1	1	3	¼ x ⅝	$1.17
3X5	5	3	¼ x ⅝	1.17
3X8	8	3	¼ x ⅝	1.17
3X20	20	3	¼ x ⅝	1.17
3X25	25	3	¼ x ⅝	1.17
3X40	40	3	¼ x ⅝	1.17
3X50	50	3	¼ x ⅝	1.17
3X75A	75	3	¼ x ⅝	1.17
3X100A	100	3	⁵⁄₁₆ x ⅝	1.02
3X150A	150	3	⁵⁄₁₆ x ⅝	1.02
3X200C	200	3	⅜ x ¾	1.10
3X250B	250	3	⅜ x ¾	1.10
3X300A	300	3	⅜ x ¾	1.10
3X400A	400	3	⅜ x ⅞	1.17
3X500A	500	3	⅜ x ⅞	1.17
3X590	590	3	⅜ x 1	1.22
3X1000A	1K	3	½ x 1	1.31
3X1500	1.5K	3	⁷⁄₁₆ x 1⅜	1.35
3X2500	2.5K	3	⁷⁄₁₆ x 2	1.70
3X3600A	3.6K	3	⅝ x 1⅜	1.97
6X1	1	6	¼ x ⅝	1.17
6X2	2	6	¼ x ⅝	1.17
6X3	3	6	¼ x ⅝	1.17
6X4	4	6	¼ x ⅝	1.17
6X5	5	6	¼ x ⅝	1.17
6X6	6	6	¼ x ⅝	1.17
6X8	8	6	¼ x ⅝	1.17
6X10	10	6	¼ x ⅝	1.17
6X15	15	6	¼ x ⅝	1.17
6X20	20	6	¼ x ⅝	1.17
6X25	25	6	¼ x ⅝	1.17
6X30	30	6	¼ x ⅝	1.17
6X35	35	6	¼ x ⅝	1.17
6X40	40	6	¼ x ⅝	1.17
6X50A	50	6	¼ x ⅝	1.17
6X60B	60	6	¼ x ⅝	1.17
6X75A	75	6	¼ x ⅝	1.17
6X80B	80	6	¼ x ⅝	1.17
6X100A	100	6	⁵⁄₁₆ x ⅝	1.02
6X150A	150	6	⁵⁄₁₆ x ⅝	1.02
6X200B	200	6	⅜ x ¾	1.10
6X250A	250	6	⅜ x ¾	1.10
6X300B	300	6	⅜ x ¾	1.10
6X400A	400	6	⅜ x 1	1.12
6X560	560	6	⅜ x 1⅛	1.22
6X1000A	1K	6	½ x 1	1.31
6X1500A	1.5K	6	⁷⁄₁₆ x 1¼	1.40
6X2000A	2K	6	⅝ x 1	1.68
6X3000	3K	6	½ x 2	1.97
10X2	2	10	¼ x ⅝	1.17
10X6	6	10	¼ x ⅝	1.17
10X10	10	10	¼ x ⅝	1.17
10X15	15	10	¼ x ⅝	1.17
10X25	25	10	¼ x ⅝	1.17
10X30A	30	10	¼ x ⅝	1.17
10X40A	40	10	¼ x ⅝	1.17
10X50A	50	10	¼ x ⅝	1.17
10X60A	60	10	¼ x ⅝	1.17
10X100A	100	10	⁵⁄₁₆ x ⅝	1.02
10X200A	200	10	⅜ x ¾	1.10
10X300	300	10	⅜ x ⅞	1.11
10X400	400	10	⅜ x 1	1.12
10X500	500	10	⅜ x 1⅛	1.17
10X600	600	10	⅜ x 1⅜	1.22
10X800	800	10	⁷⁄₁₆ x 1⅜	1.31
10X1000B	1K	10	½ x 1¼	1.40
10X1500	1.5K	10	⁷⁄₁₆ x 1¾	1.40
10X2000A	2K	10	⅝ x 1⅜	$1.97
10X2400	2.4K	10	½ x 2	1.80
12X1	1	12	¼ x ⅝	1.17
12X2	2	12	¼ x ⅝	1.17
12X3	3	12	¼ x ⅝	1.17
12X4	4	12	¼ x ⅝	1.17
12X5	5	12	¼ x ⅝	1.17
12X6	6	12	¼ x ⅝	1.17
12X8	8	12	¼ x ⅝	1.17
12X10	10	12	¼ x ⅝	1.17
12X15	15	12	¼ x ⅝	1.17
12X20	20	12	¼ x ⅝	1.17
12X25A	25	12	¼ x ⅝	1.17
12X35A	35	12	¼ x ⅝	1.17
12X50A	50	12	¼ x ⅝	1.17
12X75A	75	12	¼ x ¾	1.19
12X100A	100	12	⁵⁄₁₆ x ⅝	1.02
12X150A	150	12	⁵⁄₁₆ x ¾	1.10
12X200A	200	12	⅜ x ¾	1.10
12X250A	250	12	⅜ x ⅞	1.10
12X450A	450	12	⅜ x 1⅛	1.17
12X500	500	12	⁷⁄₁₆ x 1	1.17
12X600	600	12	⁷⁄₁₆ x 1⅛	1.31
12X800	800	12	⁷⁄₁₆ x 1⅜	1.31
12X1000B	1K	12	½ x 1¼	1.40
12X1500A	1.5K	12	⅝ x 1⅛	1.70
12X2000A	2K	12	⅝ x 1⅜	1.97
15X1	1	15	¼ x ⅝	1.17
15X2	2	15	¼ x ⅝	1.17
15X3	3	15	¼ x ⅝	1.17
15X4	4	15	¼ x ⅝	1.17
15X5	5	15	¼ x ⅝	1.17
15X6	6	15	¼ x ⅝	1.17
15X8	8	15	¼ x ⅝	1.17
15X10	10	15	¼ x ⅝	1.17
15X15	15	15	¼ x ⅝	1.17
15X20A	20	15	¼ x ⅝	1.17
15X25A	25	15	¼ x ⅝	1.17
15X30A	30	15	¼ x ⅝	1.17
15X35B	35	15	¼ x ⅝	1.17
15X40B	40	15	¼ x ⅝	1.17
15X50A	50	15	¼ x ⅝	1.17
15X75A	75	15	¼ x ¾	1.19
15X100A	100	15	⁵⁄₁₆ x ⅝	1.02
15X150A	150	15	⁵⁄₁₆ x ¾	1.10
15X200A	200	15	⅜ x ¾	1.10
15X260A	260	15	⅜ x ⅞	1.11
15X350A	350	15	⅜ x 1⅛	1.22
15X400	400	15	⅜ x 1⅛	1.25
15X500	500	15	⅜ x 1⅜	1.17
15X600	600	15	⅜ x 1½	1.31
15X800	800	15	⁷⁄₁₆ x 1⅜	1.31
15X1000B	1K	15	½ x 1¼	1.40
15X1500A	1.5K	15	⅝ x 1⅛	1.70
25X1	1	25	¼ x ⅝	1.17
25X2	2	25	¼ x ⅝	1.17
25X3	3	25	¼ x ⅝	1.17
25X4	4	25	¼ x ⅝	1.17
25X5	5	25	¼ x ⅝	1.17
25X6	6	25	¼ x ⅝	1.17
25X8	8	25	¼ x ⅝	1.17
25X10	10	25	¼ x ⅝	1.17
25X15A	15	25	¼ x ⅝	1.17
25X20A	20	25	¼ x ⅝	1.17
25X25B	25	25	¼ x ⅝	1.17
25X30A	30	25	¼ x ¾	1.19
25X35A	35	25	¼ x ¾	$1.19
25X50A	50	25	⁵⁄₁₆ x ¹¹⁄₁₆	1.02
25X75A	75	25	⅜ x ¾	1.10
25X100B	100	25	⅜ x ¾	1.10
25X150	150	25	⅜ x 1	1.12
25X200	200	25	⅜ x 1⅛	1.17
25X300	300	25	⅜ x 1½	1.35
25X400	400	25	⁷⁄₁₆ x 1⅜	1.31
25X500A	500	25	½ x 1⅜	1.45
25X600	600	25	⁷⁄₁₆ x 1¾	1.45
50X1	1	50	¼ x ⅝	1.17
50X2	2	50	¼ x ⅝	1.17
50X3	3	50	¼ x ⅝	1.17
50X4	4	50	¼ x ⅝	1.17
50X5A	5	50	¼ x ⅝	1.17
50X6B	6	50	⁵⁄₁₆ x ¹¹⁄₁₆	1.17
50X8A	8	50	¼ x ⅝	1.17
50X10B	10	50	¼ x ⅝	1.17
50X15A	15	50	¼ x ¾	1.01
50X20B	20	50	⁵⁄₁₆ x ⅝	1.02
50X25A	25	50	⁵⁄₁₆ x ¹¹⁄₁₆	1.02
50X35A	35	50	⅜ x ¾	1.10
50X50B	50	50	⅜ x ¾	1.10
50X75	75	50	⅜ x 1	1.12
50X100	100	50	⅜ x 1⅛	1.17
50X150A	150	50	½ x 1	1.31
50X200	200	50	⁷⁄₁₆ x 1⅜	1.35
50X250A	250	50	½ x 1⅜	1.45
50X300	300	50	⁷⁄₁₆ x 2	1.50
50X350A	350	50	⅝ x 1⅛	1.70
50X400A	400	50	⅝ x 1¼	1.80
50X450	450	50	½ x 2	1.97
100X1	1	100	¼ x ⅝	1.28
100X2	2	100	¼ x ⅝	1.28
100X3	3	100	¼ x ⅝	1.28
100X4A	4	100	⅜ x ⅝	1.19
100X5A	5	100	⅜ x ⅝	1.21
100X6A	6	100	⁵⁄₁₆ x ¹¹⁄₁₆	1.14
100X10	10	100	⅜ x ¾	1.14
100X15	15	100	⅜ x ⅞	1.22
100X20	20	100	⅜ x 1	1.23
100X25A	25	100	⅜ x 1	1.28
100X30	30	100	⅜ x 1⅜	1.33
100X40	40	100	⁷⁄₁₆ x 1⅜	1.44
100X45	45	100	⁷⁄₁₆ x 1½	1.46
100X50	50	100	⁷⁄₁₆ x 1¾	1.48
100X65	65	100	⁷⁄₁₆ x 2	1.65
150X1	1	150	¼ x ⅝	1.28
150X2	2	150	¼ x ¾	1.31
150X3	3	150	⁵⁄₁₆ x ⅝	1.11
150X4	4	150	⅜ x ⅝	1.19
150X5A	5	150	⅜ x ¾	1.21
150X6	6	150	⅜ x ⅝	1.21
150X8	8	150	⅜ x ⅞	1.22
150X10	10	150	⅜ x ⅞	1.22
150X12	12	150	⅜ x 1	1.23
150X15	15	150	⅜ x 1⅛	1.28
150X20	20	150	⅜ x 1⅜	1.33
150X25	25	150	⁷⁄₁₆ x 1⅜	1.44
150X30	30	150	⁷⁄₁₆ x 1½	1.44
150X35	35	150	⁷⁄₁₆ x 1¾	1.46
150X40	40	150	⁷⁄₁₆ x 2	1.48

*Size shown for plain case. For insulating sleeve add .010″ dia. x ¹⁄₁₆″ l.

MALLORY Capacitors

33 WVDC

Tolerance, ±2.5%.

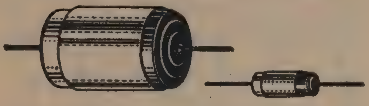
Mallory No.	Cap., pF	Size, In. Dia. x L.	Net Each
SXK310	100	.118 x .315	$0.35
SXK312	120	.118 x .315	.35
SXK315	150	.122 x .315	.35
SXK318	180	.122 x .315	.35
SXK322	220	.126 x .315	.35
SXK327	270	.130 x .315	.31
SXK333	330	.134 x .315	.31
SXK339	390	.142 x .315	.31
SXK347	470	.146 x .315	.31
SXK356	560	.150 x .315	.31
SXK368	680	.154 x .315	.31
SXK382	820	.157 x .315	.31
SXK210	1000	.161 x .315	.31
SXK212	1200	.150 x .473	.33
SXK215	1500	.154 x .473	.33
SXK218	1800	.165 x .473	.33
SXK222	2200	.173 x .473	.33
SXK227	2700	.193 x .473	.33
SXK233	3300	.205 x .473	.33
SXK239	3900	.217 x .473	.33
SXK247	4700	.236 x .473	.33
SXK256	5600	.220 x .670	.37
SXK268	6800	.236 x .670	.37
SXK282	8200	.252 x .670	.37
SXK110	10,000	.272 x .670	.37
SXK112	12,000	.291 x .670	.44
SXK115	15,000	.323 x .670	.44
SXK118	18,000	.350 x .670	.52
SXK122	22,000	.286 x .670	.52
SXK125	25,000	.407 x .670	.52
SXK127	27,000	.421 x .670	.52
SXK133	33,000	.402 x .867	.57
SXK139	39,000	.453 x .867	.57
SXK147	47,000	.480 x .867	.57
SXK156	56,000	.520 x .867	.68
SXK168	68,000	.563 x .867	.71
SXK182	82,000	.626 x .867	.78
SXK010	100,000	.670 x .867	.78

63 WVDC

Tolerance, ±2.5%.

SXL482	82	.122 x .315	$0.35
SXL310	100	.122 x .315	.35
SXL312	120	.126 x .315	.35
SXL315	150	.126 x .315	.35
SXL318	180	.126 x .315	.35
SXL322	220	.130 x .315	.28
SXL327	270	.134 x .315	.28
SXL333	330	.138 x .315	.28
SXL339	390	.146 x .315	.28
SXL347	470	.154 x .315	.28
SXL356	560	.157 x .315	.28
SXL368	680	.169 x .315	.28
SXL382	820	.177 x .315	.28
SXL210	1000	.173 x .473	.28
SXL212	1200	.189 x .473	.30
SXL215	1500	.213 x .473	.30
SXL218	1800	.224 x .473	.30
SXL222	2200	.232 x .473	.30
SXL227	2700	.244 x .473	.30
SXL233	3300	.256 x .473	.30
SXL239	3900	.280 x .473	.30
SXL247	4700	.303 x .473	.30
SXL256	5600	.276 x .670	.33
SXL268	6800	.287 x .670	.33
SXL282	8200	.303 x .670	.33
SXL110	10,000	.319 x .670	.33
SXL111	11,000	.303 x .867	.38
SXL112	12,000	.303 x .867	.38
SXL113	13,000	.315 x .867	.38
SXL115	15,000	.323 x .867	.38
SXL116	16,000	.330 x .867	.45
SXL118	18,000	.346 x .867	.45
SXL120	20,000	.358 x .867	.45
SXL122	22,000	.378 x .867	.56
SXL124	24,000	.388 x .867	.56
SXL125	25,000	.402 x .867	.56

POLYSTYRENE CAPACITORS



Manufactured from a unique form of stretched and fused polystyrene to provide the ultimate in temperature stability and humidity protection. Can replace mica, film, paper, ceramic types in most uses. **Insulation Resistance:** Greater than 100,000 megohms **Power Factor:** Less than 0.05%. **Temperature Coefficient:** −150 ppm/° C, ±60 ppm/° C. **Temperature Range:** −40° C to +85° C; for best operating stability, −25° C to +70° C. **Ask for Bulletin 9-370 for complete specifications.**

160 WVDC

Tolerance, ±2.5%.

Mallory No.	Cap., pF	Size, In. Dia. x L.	Net Each
SXM420	20	.173 x .315	$0.35
SXM433	33	.173 x .315	.27
SXM439	39	.181 x .315	.27
SXM447	47	.185 x .315	.27
SXM456	56	.177 x .315	.27
SXM468	68	.165 x .315	.27
SXM482	82	.146 x .315	.27
SXM310	100	.154 x .315	.27
SXM312	120	.161 x .315	.27
SXM315	150	.169 x .315	.27
SXM318	180	.173 x .315	.27
SXM322	220	.177 x .315	.27
SXM327	270	.181 x .315	.27
SXM330	300	.185 x .315	.27
SXM333	330	.189 x .315	.27
SXM336	360	.194 x .315	.27
SXM339	390	.201 x .315	.27
SXM343	430	.204 x .315	.27
SXM347	470	.209 x .315	.27
SXM350	500	.211 x .315	.27
SXM351	510	.213 x .315	.27
SXM356	560	.213 x .315	.27
SXM360	600	.220 x .315	.27
SXM362	620	.222 x .473	.27
SXM368	680	.228 x .473	.27
SXM375	750	.232 x .473	.27
SXM382	820	.236 x .473	.27
SXM391	910	.240 x .473	.27
SXM210	1000	.244 x .473	.26
SXM211	1100	.250 x .473	.29
SXM212	1200	.256 x .473	.29
SXM213	1300	.262 x .473	.29
SXM215	1500	.268 x .473	.29
SXM216	1600	.272 x .473	.29
SXM218	1800	.280 x .473	.29
SXM220	2000	.285 x .473	.29
SXM222	2200	.228 x .670	.29
SXM224	2400	.236 x .670	.29
SXM227	2700	.252 x .670	.29
SXM230	3000	.268 x .670	.29
SXM233	3300	.280 x .670	.32
SXM236	3600	.295 x .670	.32
SXM239	3900	.307 x ,670	.32
SXM243	4300	.324 x .670	.32
SXM247	4700	.335 x .670	.32
SXM250	5000	.340 x .670	.32
SXM251	5100	.310 x .867	.38
SXM256	5600	.315 x .867	.38
SXM262	6200	.325 x .867	.38
SXM268	6800	.335 x .867	.38
SXM275	7500	.346 x .867	.38
SXM282	8200	.358 x .867	.38
SXM291	9100	.370 x .867	.38
SXM110	10,000	.382 x .867	.38
SXM111	11,000	.405 x .867	.41
SXM112	12,000	.417 x .867	.41
SXM113	13,000	.434 x .867	.41
SXM115	15,000	.452 x .867	.41
SXM116	16,000	.422 x 1.260	.54
SXM118	18,000	.429 x 1.260	.54
SXM120	20,000	.440 x 1.260	.54
SXM122	22,000	.465 x 1.260	.58
SXM124	24,000	.485 x 1.260	.58
SXM125	25,000	.492 x 1.260	.58

630 WVDC

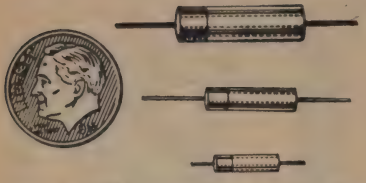
Tolerance, ±1 pF for values 5–18 pF; ±5%, all others.

Mallory No.	Cap., pF	Size, In. Dia. x L.	Net Each
SX420	20	.173 x .473	$0.26
SX422	22	.173 x .473	.26
SX424	24	.173 x .473	.26
SX427	27	.173 x .473	.26
SX430	30	.173 x .473	.26
SX433	33	.173 x .473	.25
SX436	36	.178 x .473	.25
SX439	39	.181 x .473	.25
SX443	43	.183 x .473	.25
SX447	47	.185 x .473	.25
SX456	56	.189 x .473	.25
SX462	62	.191 x .473	.25
SX468	68	.193 x .473	.25
SX475	75	.195 x .473	.25
SX482	82	.197 x .473	.25
SX491	91	.199 x .473	.25
SX310	100	.201 x .473	.25
SX311	110	.203 x .473	.25
SX312	120	.205 x .473	.25
SX313	130	.207 x .473	.25
SX315	150	.209 x .473	.25
SX316	160	.211 x .473	.25
SX318	180	.213 x .473	.25
SX320	200	.217 x .473	.25
SX322	220	.220 x .473	.25
SX324	240	.222 x .473	.25
SX327	270	.224 x .473	.25
SX330	300	.226 x .473	.25
SX333	330	.228 x .473	.25
SX336	360	.232 x .473	.25
SX339	390	.236 x .473	.25
SX343	430	.242 x .473	.25
SX347	470	.248 x .473	.25
SX351	510	.214 x .670	.25
SX356	560	.217 x .670	.25
SX362	620	.226 x .670	.25
SX368	680	.232 x .670	.25
SX375	750	.244 x .670	.25
SX382	820	.248 x .670	.25
SX391	910	.256 x .670	.25
SX210	1000	.264 x .670	.25
SX211	1100	.276 x .670	.31
SX212	1200	.283 x .670	.31
SX213	1300	.291 x .670	.31
SX215	1500	.299 x .670	.31
SX216	1600	.305 x .670	.31
SX218	1800	.319 x .670	.31
SX220	2000	.329 x .670	.31
SX222	2200	.339 x .670	.31
SX224	2400	.352 x .670	.31
SX225	2500	.355 x .670	.31
SX227	2700	.362 x .670	.31
SX230	3000	.366 x .670	.31
SX233	3300	.378 x .867	.38
SX236	3600	.388 x .867	.38
SX239	3900	.398 x .867	.38
SX243	4300	.414 x .867	.38
SX247	4700	.425 x .867	.38
SX250	5000	.445 x .867	.38
SX251	5100	.447 x .867	.56
SX256	5600	.453 x .867	.56
SX262	6200	.470 x .867	.56
SX268	6800	.480 x .867	.56
SX275	7500	.498 x .867	.56
SX282	8200	.516 x .867	.56
SX291	9100	.532 x .867	.56
SX110	10,000	.555 x .867	.56
SX112	12,000	.520 x 1.260	.82
SX115	15,000	.563 x 1.260	.82
SX118	18,000	.598 x 1.260	.93
SX122	22,000	.650 x 1.260	1.04
SX125	25,000	.690 x 1.260	1.04

OUR STOCKS ARE FULLY UP TO DATE WITH ALL THE LATEST PRODUCTS.
ASK ABOUT NEW OR UNLISTED ITEMS.

MALLORY Tantalum Capacitors

MTP ULTRA-MINIATURE TANTALUM CAPACITORS



Mallory MTP capacitors provide the greatest capacity-voltage product of any tantalum type. Sintered anodes are housed in special silver cases with elastomer end seal, and are completely insulated. Operating Temp.: −50° C to + 85° C. Tolerance: ±20%. DLC is extremely low. **See bulletin 4-606 for details.**

MTP INDUSTRIAL NET PRICES

Case Size	Net Each, Lots of 1-24	25-49	50-99	100 Up
A	$2.92	$2.39	$1.89	$1.41
B	3.00	2.45	1.95	1.45
C	4.18	3.42	2.71	2.02
D	6.96	5.69	4.52	3.37

MTP TYPES

μF	WVDC	Mallory Number	Size
15	6	MTP156M006P1D	D
47	6	MTP476M006P1A	A
150	6	MTP157M006P1B	B
180	6	MTP187M006P1B	B
450	6	MTP457M006P1C	C
470	6	MTP477M006P1C	C
10	10	MTP106M010P1D	D
33	10	MTP336M010P1A	A
100	10	MTP107M010P1B	B
120	10	MTP127M010P1B	B
300	10	MTP307M010P1C	C
330	10	MTP337M010P1C	C
22	15	MTP226M015P1A	A
68	15	MTP686M015P1B	B
80	15	MTP806M015P1B	B
200	15	MTP207M015P1C	C
220	15	MTP227M015P1C	C
6.8	20	MTP685M020P1D	D
15	20	MTP156M020P1A	A
47	20	MTP476M020P1B	B
60	20	MTP606M020P1B	B
150	20	MTP157M020P1C	C
6	30	MTP605M030P1D	D
10	30	MTP106M030P1A	A
45	30	MTP456M030P1B	B
120	30	MTP127M030P1C	C

MTPH TYPES

μF	WVDC	Mallory Number	Size
4.7	35	MTP475M035P1D	D
10	35	MTP106M035P1A	A
100	35	MTP107M035P1C	C
4	50	MTP405M050P1D	D
6.8	50	MTP685M050P1A	A
30	50	MTP306M050P1B	B
33	50	MTP336M050P1B	B
68	50	MTP686M050P1C	C
78	50	MTP786M050P1C	C
3.3	60	MTP335M060P1D	D
4.7	60	MTP475M060P1A	A
6.8	60	MTP685M060P1A	A
10	60	MTP106M060P1B	B
15	60	MTP156M060P1B	B
22	60	MTP226M060P1B	B
33	60	MTP336M060P1C	C
47	60	MTP476M060P1C	C
68	60	MTP686M060P1C	C

CASE SIZES

Case Size	Dimensions Diameter	Length
A	.115″	.403″
B	.145″	.600″
C	.225″	.778″
D	.115″	.300″

TYPES TLS AND TLH LIQUID ELECTROLYTE TANTALUM CAPACITORS

Type TLS is the commercial version of MIL-C-3965/4. CL64/65 is a cancelled MIL spec and Type TLS meets its requirements and can be used as replacement in original equipment. Type TLH is the extended range version of the TLS and exhibits the same characteristics but has higher capacity per case size. Type listed have insulating sleeve. To order uninsulated version, change 12th character in TLS part number to **"0". Tolerance:** ±20%, ±10%, and ±5%. **Complete specs in bulletin 4-604.**

Mallory Number TLS-	Cap. μF	WV DC	★
306*006C1A	30	6	AM1
686*006C1A	68	6	AM1
147*006C1B	140	6	BM1
277*006C1B	270	6	BM1
337*006C1C	330	6	CM1
567*006C1C	560	6	CM1
128*006C1F	1200	6	FM1
256*008C1A	25	8	AM1
566*008C1A	56	8	AM1
227*008C1C	220	8	BM1
437*008C1C	430	8	CM1
857*008C1F	850	8	FM1
206*010C1A	20	10	AM1
476*010C1A	47	10	AM1
107*010C1B	100	10	BM1
187*010C1B	180	10	BM1
257*010C1C	250	10	CM1
397*010C1C	390	10	CM1
757*010C1F	750	10	FM1
156*015C1A	15	15	AM1
336*015C1A	33	15	AM1
706*015C1B	70	15	BM1
127*015C1B	120	15	BM1
177*015C1C	170	15	CM1
277*015C1C	270	15	CM1
547*015C1F	540	15	FM1
106*025C1A	10	25	AM1
226*025C1A	22	25	AM1
107*025C1B	100	25	BM5
187*025C1C	180	25	CM1
357*025C1F	350	25	FM1
805*030C1A	8	30	AM1
156*030C1A	15	30	AM1
406*030C1B	40	30	BM1
686*030C1B	68	30	BM1
107*030C1C	100	30	CM5
157*030C1C	150	30	CM1
307*030C1F	300	30	FM1
505*050C1A	5	50	AM1
106*050C1A	10	50	AM1
256*050C1B	25	50	BM1
476*050C1B	47	50	BM1
606*050C1C	60	50	CM1
826*050C1C	82	50	CM1
167*050C1F	160	50	FM1
405*060C1A	4	60	AM3
825*060C1A	8.2	60	AM3
206*060C1B	20	60	BM1
396*060C1B	39	60	BM1
506*060C1C	50	60	CM1
686*060C1C	68	60	CM1
147*060C1F	140	60	FM1
355*075C1A	3.5	75	AM3
685*075C1A	6.8	75	AM3
156*075C1B	15	75	BM6
336*075C1B	33	75	BM6
406*075C1C	40	75	CM1
566*075C1C	56	75	CM1
117*075C1F	110	75	FM1
255*100C1A	2.5	100	AM3
475*100C1A	4.7	100	AM3
116*100C1B	11	100	BM2
226*100C1B	22	100	BM2
306*100C1C	30	100	CM4
436*100C1C	43	100	CM4
866*100C1F	86	100	FM2
175*125C1A	1.7	125	AM3
365*125C1A	3.6	125	AM3
905*125C1B	9	125	BM2
146*125C1B	14	125	BM2
186*125C1C	18	125	CM2
256*125C1C	25	125	CM4
566*125C1F	56	125	FM2

Mallory Number TLH-	Cap. μF	WV DC	★
227*006C1A	220	6	AM2
827*006C1B	820	6	BM4
158*006C1C	1500	6	CM3
228*006C1F	2200	6	FM3
187*008C1A	180	8	AM2
687*008C1B	680	8	BM4
158*008C1C	1500	8	CM3
188*008C1F	1800	8	FM3
157*010C1A	150	10	AM2
567*010C1B	560	10	BM4
128*010C1C	1200	10	CM3
158*010C1F	1500	10	FM3
107*015C1A	100	15	AM2
397*015C1B	390	15	BM4
827*015C1C	820	15	CM3
108*015C1F	1000	15	FM3
686*025C1A	68	25	AM2
277*025C1B	270	25	BM4
567*025C1C	560	25	CM5
687*025C1F	680	25	FM3
566*030C1A	56	30	AM2
227*030C1B	220	30	BM4
477*030C1C	470	30	CM5
567*030C1F	560	30	FM3
336*050C1A	33	50	AM2
127*050C1B	120	50	BM4
277*050C1C	270	50	CM5
337*050C1F	330	50	FM3
276*060C1A	27	60	AM2
107*060C1B	100	60	BM4
227*060C1C	220	60	CM5
277*060C1F	270	60	FM3
226*075C1A	22	75	AM2
826*075C1B	82	75	BM3
187*075C1C	180	75	CM6
227*075C1F	220	75	FM3

*Specify tolerance: J = ±5%, K = ±10%, M = ±20%.

★ PRICING INFORMATION

Code	Size D.	Size L.	Tol. ±%	Net Each, Lots of 1-24	25-49	50-99	100-Up
AM1	.188″	.453″	20%	$ 3.97	$ 3.23	$ 2.57	$ 2.06
			10%	4.40	3.59	2.85	2.28
			5%	5.97	4.86	3.87	3.09
AM2	.188″	.453″	20%	4.59	3.74	2.98	2.38
			10%	5.00	4.07	3.24	2.59
			5%	6.89	5.61	4.46	3.57
AM3	.188″	.453″	20%	4.43	3.61	2.87	2.30
			10%	4.86	3.96	3.15	2.52
			5%	6.64	5.41	4.31	3.44
BM1	.281″	.641″	20%	7.02	5.72	4.55	3.64
			10%	7.70	6.27	4.99	3.99
			5%	10.53	8.58	6.83	5.46
BM2	.281″	.641″	20%	9.45	7.70	6.13	4.90
			10%	10.53	8.58	6.83	5.46
			5%	14.18	11.55	9.19	7.35
BM3	.281″	.641″	20%	9.86	8.03	6.39	5.11
			10%	10.80	8.80	7.00	5.60
			5%	14.80	12.06	9.59	7.67
BM4	.281″	.641″	20%	9.86	8.03	6.39	5.11
			10%	10.80	8.80	7.00	5.60
			5%	14.80	12.06	9.59	7.67
BM5	.281″	.641″	20%	7.83	6.38	5.08	4.06
			10%	8.64	7.04	5.60	4.48
			5%	11.75	9.57	7.61	6.09
BM6	.281″	.641″	20%	7.83	6.38	5.08	4.06
			10%	8.64	7.04	5.60	4.48
			5%	11.75	9.57	7.61	6.09
CM1	.374″	.766″	20%	11.61	9.46	7.53	6.02
			10%	12.83	10.45	8.31	6.65
			5%	17.42	14.19	11.29	9.03
CM2	.374″	.766″	20%	13.64	11.11	8.84	7.07
			10%	14.85	12.10	9.63	7.70
			5%	20.47	16.68	13.27	10.61
CM3	.374″	.766″	20%	14.85	12.10	9.63	7.70
			10%	16.47	13.42	10.68	8.54
			5%	22.28	18.15	14.44	11.55
CM4	.374″	.766″	20%	13.64	11.11	8.84	7.07
			10%	14.85	12.10	9.63	7.70
			5%	20.47	16.68	13.27	10.61
CM5	.374″	.766″	20%	17.55	14.30	11.38	9.10
			10%	19.39	15.80	12.57	10.05
			5%	26.33	21.45	17.06	13.65
CM6	.374″	.766″	20%	17.55	14.30	11.38	9.10
			10%	19.39	15.80	12.57	10.05
			5%	26.33	21.45	17.06	13.65
FM1	.375″	1.062″	20%	22.55	18.37	14.61	11.69
			10%	24.84	20.24	16.10	12.88
			5%	33.83	27.57	21.93	17.54
FM2	.375″	1.062″	20%	22.55	18.37	14.61	11.69
			10%	24.84	20.24	16.10	12.88
			5%	33.83	27.57	21.93	17.54
FM3	.375″	1.062″	20%	22.52	18.37	14.61	11.69
			10%	24.84	20.24	16.10	12.88
			5%	33.83	27.57	21.93	17.54

MALLORY Mylar Capacitors

EWF METALIZED POLYESTER CAPACITORS

EWF capacitors have high insulation and moisture resistance, excellent electrical parameters and low dissipation factor. Ideal for coupling and by-pass applications. Outer case is polyester wrapped and end sealed in epoxy resin. Axial centered leads are copper wire with double tinning for easy point to point soldering or printed circuit adaption. **Tolerance:** ±10%.

Mallory No.	Cap., µF	Size, In. Dia. x Lg.	Net Each
100 WVDC			
EWF1A010M	.10	.236 x .591	**$0.58**
EWF1A015M	.15	.295 x .591	**.59**
EWF1A022M	.22	.295 x .787	**.70**
EWF1A033M	.33	.354 x .591	**.86**
EWF1A047M	.47	.295 x .787	**1.02**
EWF1A068M	.68	.335 x .787	**1.36**
EWF1A10M	1.00	.433 x .787	**1.52**
EWF1A15M	1.50	.354 x 1.14	**2.04**
EWF1A22M	2.20	.433 x 1.14	**2.48**
EWF1A33M	3.30	.472 x 1.26	**2.76**
EWF1A47M	4.70	.571 x 1.26	**3.52**
EWF1A68M	6.80	.689 x 1.26	**4.36**

Mallory No.	Cap., µF	Size, In. Dia. x Lg.	Net Each
400 WVDC			
EWF4122M	.022	.315 x .591	**$0.54**
EWF4133M	.033	.276 x .591	**.55**
EWF4147M	.047	.315 x .591	**.56**
EWF4168M	.068	.335 x .571	**.57**
EWF4010M	.10	.295 x .787	**.61**
EWF4015M	.15	.354 x .787	**.80**
EWF4022M	.22	.315 x 1.14	**.96**
EWF4033M	.33	.374 x 1.14	**1.10**
EWF4047M	.47	.453 x 1.14	**1.24**
EWF4068M	.68	.492 x 1.26	**1.48**
EWF410M	1.00	.591 x 1.26	**1.96**

Mallory No.	Cap., µF	Size, In. Dia. x Lg.	Net Each
630 WVDC			
EWF6122M	.022	.315 x .591	**$0.74**
EWF6133M	.033	.276 x .787	**.74**
EWF6147M	.047	.315 x .787	**.78**
EWF6168M	.068	.374 x .787	**.88**
EWF6010M	.10	.433 x .787	**1.04**
EWF6015M	.15	.394 x 1.14	**1.07**
EWF6022M	.22	.453 x 1.14	**1.28**
EWF6033M	.33	.512 x 1.26	**1.40**
EWF6047M	.47	.630 x 1.26	**1.96**
EWF6068M	.68	.748 x 1.26	**2.44**
EWF610M	1.00	.906 x 1.26	**3.88**

PVC POLYESTER/POLYPROPYLENE FILM CAPACITORS

Dipped epoxy case protects capacitor from heat and cleaning solvents. The copper wire leads are crimped in swaged end foil. **Insulation Resistance:** 10,000 megohm-µF or 100,000 megohms. **Temperature Range:** −55° C to +125° C through 1000 WVDC; −55° C to +105° C for 1600 WVDC and 2000 WVDC.

Mallory No.	Cap., µF	Size, Inches			Net Each
		Lgth.	Dia.*	Thk.	
100 WVDC					
PVC1118	.018	.70	.33	...	**$0.54**
PVC1122	.022	.70	.35	...	**.54**
PVC1133	.033	.70	.35	...	**.54**
PVC114	.04	.70	.35	...	**.59**
PVC1147	.047	.70	.35	...	**.59**
PVC1156	.056	.70	.38	...	**.62**
PVC1168	.068	.70	.38	...	**.62**
PVC101	.10	.90	.40	...	**.69**
PVC1015	.15	.90	.45	...	**.76**
PVC1022	.22	1.20	.45	...	**.88**
PVC1025	.25	1.20	.47	...	**.97**
PVC1033	.33	1.20	.50	...	**.97**
PVC1047	.47	1.60	.50	...	**1.35**
PVC105	.50	1.60	.60	...	**1.52**
PVC1068	.68	1.60	.60	...	**1.52**
PVC11	1.00	1.60	.70	...	**2.15**
PVC11P5	1.50	1.24	.68	.46	**3.23**
PVC12	2.00	1.24	.77	.55	**3.50**
200 WVDC					
PVC211	.01	.70	.33	...	**$0.54**
PVC2115	.015	.70	.33	...	**.54**
PVC212	.02	.70	.33	...	**.54**
PVC2122	.022	.70	.33	...	**.54**
PVC2133	.033	.90	.38	...	**.59**
PVC214	.04	.90	.38	...	**.65**
PVC2147	.047	.90	.38	...	**.65**
PVC215	.05	1.20	.38	...	**.69**
PVC2168	.068	1.20	.38	...	**.69**
PVC201	.10	1.20	.40	...	**.76**
PVC2015	.15	1.20	.45	...	**.88**
PVC2022	.22	1.20	.50	...	**.97**
PVC2025	.25	1.20	.50	...	**1.27**
PVC2033	.33	1.60	.48	...	**1.27**
PVC2047	.47	1.60	.56	...	**1.70**
PVC205	.50	1.60	.56	...	**1.70**
PVC21	1.00	1.24	.81	.56	**2.87**
PVC22	2.00	1.24	.94	.69	**4.17**

*Or height when thickness measurement is given.

Mallory No.	Cap., µF	Size, Inches			Net Each
		Lgth	Dia.*	Thk.	
400 WVDC					
PVC411	.01	.70	.35	...	**$0.54**
PVC412	.02	.90	.39	...	**.59**
PVC4147	.047	1.20	.40	...	**.71**
PVC415	.05	1.20	.40	...	**.76**
PVC401	.10	1.20	.53	...	**.88**
PVC4022	.22	1.20	.60	...	**1.35**
PVC4025	.25	1.20	.60	...	**1.52**
PVC4047	.47	1.60	.72	...	**2.15**
PVC405	.50	1.62	.84	.59	**3.36**
600 WVDC					
PVC621	.001	.70	.31	...	**$0.51**
PVC6212	.0012	.70	.34	...	**.51**
PVC6215	.0015	.70	.34	...	**.51**
PVC622	.002	.70	.34	...	**.51**
PVC6222	.0022	.70	.34	...	**.51**
PVC6225	.0025	.70	.34	...	**.51**
PVC6227	.0027	.70	.35	...	**.51**
PVC623	.003	.70	.35	...	**.51**
PVC6233	.0033	.70	.35	...	**.51**
PVC6239	.0039	.70	.39	...	**.55**
PVC624	.004	.70	.39	...	**.55**
PVC6247	.0047	.70	.39	...	**.55**
PVC625	.005	.70	.39	...	**.55**
PVC6256	.0056	.70	.40	...	**.55**
PVC626	.006	.70	.40	...	**.55**
PVC6268	.0068	.70	.40	...	**.55**
PVC6275	.0075	.70	.40	...	**.60**
PVC628	.008	.90	.40	...	**.60**
PVC6282	.0082	.90	.40	...	**.60**
PVC611	.01	.90	.40	...	**.60**
PVC6112	.012	.90	.40	...	**.63**
PVC6115	.015	.90	.40	...	**.63**
PVC612	.02	.90	.45	...	**.71**
600 WVDC (CONT'D)					
PVC6122	.022	.90	.45	...	**$0.71**
PVC6125	.025	.90	.45	...	**.78**
PVC6127	.027	1.20	.45	...	**.78**
PVC613	.03	1.20	.45	...	**.78**
PVC6133	.033	1.20	.45	...	**.78**
PVC6139	.039	1.20	.56	...	**.92**
PVC614	.04	1.20	.56	...	**.92**
PVC6147	.047	1.20	.56	...	**.92**
PVC615	.05	1.20	.56	...	**1.01**
PVC6156	.056	1.20	.60	...	**1.01**
PVC6168	.068	1.20	.60	...	**1.01**
PVC6182	.082	1.20	.65	...	**1.10**
PVC601	.10	1.20	.65	...	**1.10**
PVC6015	.15	1.60	.70	...	**1.57**
PVC602	.2	1.60	.81	...	**2.22**
PVC6022	.22	1.60	.82	...	**2.22**
PVC6025	.25	1.81	.82	...	**2.30**
PVC6033	.33	1.81	.89	...	**2.86**
PVC6047	.47	1.81	.89	...	**4.71**
PVC605	.5	1.62	.81	.59	**4.25**
PVC61	1.00	1.62	1.01	.80	**6.39**
1600 WVDC					
PVC1621	.001	1.31	.50	...	**$0.94**
PVC16215	.0015	1.31	.50	...	**.94**
PVC16222	.0022	1.31	.50	...	**.94**
PVC16227	.0027	1.31	.50	...	**1.34**
PVC1623	.003	1.31	.50	...	**.94**
PVC16233	.0033	1.31	.50	...	**.94**
PVC1624	.004	1.31	.50	...	**.94**
PVC16247	.0047	1.31	.50	...	**.94**
PVC1625	.005	1.31	.50	...	**1.08**
PVC1626	.006	1.31	.56	...	**1.08**
PVC1628	.0068	1.31	.56	...	**1.08**
PVC1627	.007	1.31	.56	...	**1.08**
PVC16275	.0075	1.31	.56	...	**1.13**
PVC1628	.008	1.31	.60	...	**1.13**
PVC16282	.0082	1.31	.60	...	**.94**
PVC1611	.01	1.31	.60	...	**1.13**
PVC16115	.015	1.31	.65	...	**1.46**
PVC1612	.02	1.70	.65	...	**1.69**
PVC16122	.022	1.70	.65	...	**1.69**
PVC16133	.033	1.70	.75	...	**2.06**
PVC16147	.047	1.70	.85	...	**2.69**
PVC1615	.05	1.70	.85	...	**2.69**
PVC16168	.068	1.62	.81	.59	**4.08**
2000 WVDC					
PVC2X21	.001	1.31	.50	...	**$0.94**
PVC2X256	.0056	1.31	.65	...	**1.13**
PVC2X268	.0068	1.31	.65	...	**1.26**

OUR STOCKS ARE FULLY UP TO DATE WITH ALL THE LATEST PRODUCTS.
ASK ABOUT NEW OR UNLISTED ITEMS.

MALLORY Monolithic Ceramic Capacitors

MULTILAYER CERAMIC CAPACITORS

Manufactured to commercial standards; MIL styles meet or exceed military specifications MIL-C-11015 and MIL-C-39014. Commercial types C12, C20, C25, C30, C40, and C50 are for general replacement applications. MIL-C-11015 styles CK05, CK06, CK12, CK14, CK15 and CK16 are designed to fulfill military requirements, as well as for use in commercial applications. MIL-C-39014 specification is used on all new replacements for military gear. Styles CKR05 and CKR06, established reliability capacitors, conform to MIL-C-39014 requirements. Capacitors listed are distributor stock items, available for immediate delivery. Other types available; information on request.

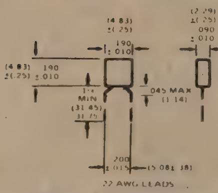
COMMERCIAL TYPES C12, C20, C25, C30, C40 AND C50

Radial leads standard. Epoxy dip coated. **Temperature Characteristic:** Z5U. Letter "M" in Mallory No. signifies ±20% tolerance; "Z" signifies +80, −20%.

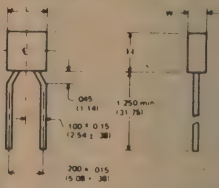
Mallory No.	Capacity, µF	WV DC	Size (In.) L.	Size (In.) W.	Size (In.) T.	Lead Spacing (In.)
50 WVDC						
C12C223M5U1CA	.022	50	.250	.200	.125	.100
C12C333M5U1CA	.033	50	.250	.200	.125	.100
C12C473M5U1CA	.047	50	.250	.200	.125	.100
C12C683M5U1CA	.068	50	.250	.200	.125	.100
C12C104M5U1CA	.1	50	.250	.200	.125	.100
C12C104Z5U1CA	.1	50	.250	.200	.125	.100
C12C154M5U1CA	.15	50	.250	.200	.125	.100
C12C224M5U1CA	.22	50	.250	.200	.125	.100
C20C223M5U1CA	.022	50	.250	.200	.125	.100
C20C333M5U1CA	.033	50	.250	.200	.125	.100
C20C473M5U1CA	.047	50	.250	.200	.125	.100
C20C683M5U1CA	.068	50	.250	.200	.125	.100
C20C104M5U1CA	.1	50	.250	.200	.125	.100
C20C154M5U1CA	.15	50	.250	.200	.125	.100
C20C224M5U1CA	.22	50	.250	.200	.125	.100
C25C474M5U1CA	.47	50	.300	.325	.150	.250
C25C684M5U1CA	.68	50	.300	.325	.150	.250
C25C105M5U1CA	1.0	50	.300	.325	.150	.250
C25C105Z5U1CA	1.0	50	.300	.325	.150	.250
C25C155M5U1CA	1.5	50	.300	.325	.150	.250
C30C474M5U1CA	.47	.50	.300	.300	.150	.200
C30C684M5U1CA	.68	.50	.300	.300	.150	.200
C30C105M5U1CA	1.0	.50	.300	.300	.150	.200
C30C155M5U1CA	1.5	50	.300	.300	.200	.200
C40C155M5U1CA	1.5	50	.400	.400	.150	.200
C40C225M5U1CA	2.2	50	.300	.30	.200	.200
C50C335M5U1CA	3.3	50	.300	.300	.200	.200
C50C475M5U1CA	4.7	50	.500	.500	.200	.400
C50C685M5U1CA	6.8	50	.500	.500	.200	.400

Mallory No.	Capacity, µF	WV DC	Size (In.) L.	Size (In.) W.	Size (In.) T.	Lead Spacing (In.)
100 WVDC						
C12C103M1U1CA	.01	100	.250	.200	.125	.100
C12C103Z1U1CA	.01	100	.250	.200	.125	.100
C12C153M1U1CA	.015	100	.250	.200	.125	.100
C12C223M1U1CA	.022	100	.250	.200	.125	.100
C12C333M1U1CA	.033	100	.250	.200	.125	.100
C12C473M1U1CA	.047	100	.250	.200	.125	.100
C12C683M1U1CA	.068	100	.250	.200	.125	.100
C20C103M1U1CA	.01	100	.200	.200	.125	.100
C20C153M1U1CA	.015	100	.200	.200	.125	.100
C20C223M1U1CA	.022	100	.200	.200	.125	.100
C20C333M1U1CA	.033	100	.200	.200	.125	.100
C20C473M1U1CA	.047	100	.200	.200	.125	.100
C20C683M1U1CA	.068	100	.200	.200	.125	.100
C25C223M1U1CA	.022	100	.300	.325	.150	.250
C25C333M1U1CA	.033	100	.300	.325	.150	.250
C25C473M1U1CA	.047	100	.300	.325	.150	.250
C25C683M1U1CA	.068	100	.300	.325	.150	.250
C25C104M1U1CA	.1	100	.300	.325	.150	.250
C25C104Z1U1CA	.1	100	.300	.325	.150	.250
C25C154M1U1CA	.15	100	.300	.325	.150	.250
C25C224M1U1CA	.22	100	.300	.325	.150	.250
C25C334M1U1CA	.33	100	.300	.325	.150	.250
C30C223M1U1CA	.022	100	.300	.300	.150	.200
C30C333M1U1CA	.033	100	.300	.300	.150	.200
C30C473M1U1CA	.047	100	.300	.300	.150	.200
C30C683M1U1CA	.068	100	.300	.300	.150	.200
C30C104M1U1CA	.1	100	.300	.300	.150	.200
C30C154M1U1CA	.15	100	.300	.300	.150	.200
C30C224M1U1CA	.22	100	.300	.300	.150	.200
C30C334M1U1CA	.33	100	.300	.300	.150	.200
C30C334M1U1CA	.33	100	.300	.300	.200	.200
C30C474M1U1CA	.47	100	.300	.300	.200	.200
C30C684M1U1CA	.68	100	.300	.300	.200	.200
C30C105M1U1CA	1.0	100	.300	.300	.200	.200
C30155M1U1CA	1.5	100	.300	.300	.200	.200
C40C334M1U1CA	.33	100	.400	.400	.150	.200
C40C474M1U1CA	.47	100	.400	.400	.150	.200
C40C684M1U1CA	.68	100	.400	.400	.150	.200
C50C105M1U1CA	1.0	100	.500	.500	.200	.400
C50C155M1U1CA	1.5	100	.500	.500	.200	.400

MIL-C-11015—STYLE CK05 AND MIL-C-39014—STYLE CKR05



CK05



CKR05

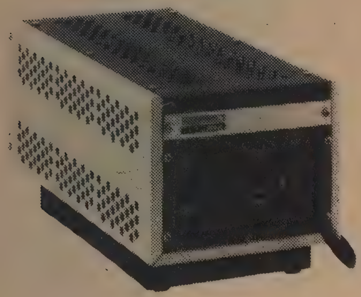
Molded case. Radial leads. **Temperature Characteristic:** BX. **Tolerance:** ±10%. **Voltage Rating:** 10 through 1,000 pF, 200 WVDC; 1,200 through 10,000 pF, 100 WVDC; 12,000 through 100,000 pF, 50 WVDC. **CK05 Dimensions:** See drawing. **CKR05 Dimensions:** .190" h. × .190" l. × .090" w. (tolerance, ±10%); lead wire dia., .025" (tolerance, +.004", −.001").

Capacity pF	Mallory No. MIL-C-11015 Style CK05	Mallory No. MIL-C-39014 Style CKR05
10	**CK05BX100K**	**M39014/011281**
12	**CK05BX120K**	**M39014/011283**
15	**CK05BX150K**	**M39014/011284**
18	**CK05BX180K**	**M39014/011286**
22	**CK05BX220K**	**M39014/011287**
27	**CK05BX270K**	**M39014/011289**
33	**CK05BX330K**	**M39014/011290**
39	**CK05BX390K**	**M39014/011292**
47	**CK05BX470K**	**M39014/011293**
56	**CK05BX560K**	**M39014/011295**
68	**CK05BX680K**	**M39014/011296**
82	**CK05BX820K**	**M39014/011298**
100	**CK05BX101K**	**M39014/011299**
120	**CK05BX121K**	**M39014/011301**
150	**CK05BX151K**	**M39014/011302**
180	**CK05BX181K**	**M39014/011304**
220	**CK05BX221K**	**M39014/011305**
270	**CK05BX271K**	**M39014/011307**
330	**CK05BX331K**	**M39014/011308**
390	**CK05BX391K**	**M39014/011310**
470	**CK05BX471K**	**M39014/011311**
560	**CK05BX561K**	**M39014/011313**

Capacity pF	Mallory No. MIL-C-11015 Style CK05	Mallory No. MIL-C-39014 Style CKR05
680	**CK05BX681K**	**M39014/011314**
820	**CK05BX821K**	**M39014/011316**
1.000	**CK05BX102K**	**M39014/011317**
1,200	**CK05BX122K**	**M39014/011319**
1,500	**CK05BX152K**	**M39014/011320**
1,800	**CK05BX182K**	**M39014/011522**
2,200	**CK05BX222K**	**M39014/011523**
2.700	**CK05BX272K**	**M39014/011525**
3,300	**CK05BX332K**	**M39014/011526**
3,900	**CK05BX392K**	**M39014/011528**
4.700	**CK05BX472K**	**M39014/011529**
5.600	**CK05BX562K**	**M39014/011531**
6,800	**CK05BX682K**	**M39014/011532**
8.200	**CK05BX822K**	**M39014/011534**
10,000	**CK05BX103K**	**M39014/011535**
12,000	**CK05BX123K**	**M39014/011537**
15,000	**CK05BX153K**	**M39014/011538**
18.000	**CK05BX183K**	**M39014/011540**
22.000	**CK05BX223K**	**M39014/011541**
27.000	**CK05BX273K**	**M39014/011543**
33,000	**CK05BX333K**	**M39014/011544**
39,000	**CK05BX393K**	**M39014/011546**
47,000	**CK05BX473K**	**M39014/011547**
56.000	**CK05BX563K**	**M39014/011549**
68.000	**CK05BX683K**	**M39014/011550**
82,000	**CK05BX823K**	**M39014/011552**
100.000	**CK05BX104K**	**M39014/011553**

SOLA ELECTRIC

MINI-COMPUTER REGULATORS UL LISTED



The Sola Micro/Mini Computer Ultra Isolated Regulator provides instantaneous voltage regulation, and ultra isolation from both transverse and common mode noise for any type of load. It also suppresses transients, protects against overloads and serves as a portable dedicated line. It is the ultimate in AC line conditioning equipment. The Sola "Micro/Mini" is particularly applicable in systems involving mini or microcomputers, POS equipment, microprocessors, or data terminals, where noise and transients cause errors, or low voltage and short term disruptions can result in loss of memory. The output waveshape is sinusoidal and contains less than 3% harmonic distortion, making it ideal for any electronic load. Common mode noise rejection exceeds 120 dB for the regulator, while transverse noise rejection is better than 60 dB; true ultra isolation. Brownout protection is a real bonus feature. Input line voltage variations as great as ±15% are instantaneously regulated to a maximum output deviation of ±3%. And, the output will remain within NEMA voltage specifications for input voltages as low as 65% of nominal. Especially designed for office type environments, the Sola "Micro/Mini" is truely portable and has a low sound level of 43 dB.

PORTABLE

60 Hz Single Phase: Nominal Output Voltage, 120 V. Input Voltage Range, 95-130 V. Units will operate at lower voltage. **50 Hz Single Phase:** Nominal Output Voltage, 220 V. Input Voltage Range, 180-260 V. Units will operate at lower voltage.

Output		Input† Voltage Range	Sola No.	Approx. Ship. Wt. (Lbs.)	Dimensions (Inches) Figure #1			Net Each
Max. VA Rating	Nom. Volts				A	B	C	
60 Hz Single Phase—UL Listed								
70	120	95–130	**63-13-070**	10	11.65	5.58	5.80	**$ 167.00**
140	120	95–130	**63-13-114**	18	11.65	5.58	5.80	**219.00**
250	120	95–130	**63-13-125**	31	13.25	7.70	7.05	**261.00**
500	120	95–130	**63-13-150**	47	16.24	8.50	8.22	**362.00**
750	120	95–130	**63-13-175**	60	16.24	8.50	8.22	**461.00**
1000	120	95–130	**63-13-210**	75	16.24	8.50	8.22	**534.00**
2000*	120	95–130	**63-13-220**	108	16.50	10.96	10.34	**908.00**
50 Hz Single Phase—Not UL Listed								
70	220	180–260	**63-13-570**	10	11.65	5.58	5.80	**$ 193.00**
140	220	180–260	**63-13-614**	21	13.25	7.70	7.05	**251.00**
250	220	180–260	**63-13-625**	33	13.25	7.70	7.05	**301.00**
500	220	180–260	**63-13-650**	45	16.24	8.50	8.22	**427.00**
1000	220	180–260	**63-13-710**	72	16.24	8.50	8.22	**618.00**
2000*	220	180–260	**63-13-720**	113	16.50	10.96	10.34	**1055.00**

*30 Amp twist receptacle. †For ±3% output regulation. Unit will operate at lower voltage.

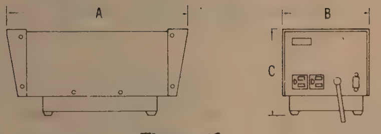


Figure #1

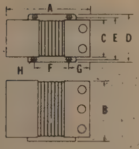


Figure #2

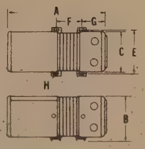


Figure #3

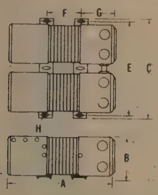


Figure #4

HARD WIRED—UL LISTED 60 Hz SINGLE PHASE

Sola No.	Dimensions, Inches							
	A	B	C	D	E	F	G	H
63-23-112-4	8.62	5.19	3.13	4.00	3.50	3.00	2.44	0.22 × 0.59
63-23-125-4	9.88	7.44	4.50	5.38	4.75	4.12	2.44	0.31 × 0.69
63-23-150-4	14.38	6.44	7.78	9.00	8.12	5.62	3.06	0.38 × 0.81
63-23-175-4	15.38	6.44	7.78	9.00	8.12	5.62	3.06	0.38 × 0.81
63-23-210-4	16.25	6.44	7.78	9.00	8.12	5.62	3.06	0.38 × 0.81
63-23-215-4	18.44	9.03	10.56	...	11.75	3.00	5.19	0.44 × 0.69
63-23-220-4	19.31	9.03	10.56	...	11.75	3.88	5.19	0.44 × 0.69
63-25-230-3	20.69	9.03	10.56	...	11.75	5.25	5.19	0.44 × 0.69
63-26-230	20.69	9.03	10.56	...	11.75	5.25	5.19	0.44 × 0.69
63-25-250-6	19.88	9.03	25.81	...	24.81	4.44	5.19	0.44 × 0.69
63-26-250-6	19.88	9.03	25.81	...	24.81	4.44	5.19	0.44 × 0.69
63-28-275-6	19.88	9.38	38.25	...	37.22	4.44	5.19	0.56 × 0.69
63-25-250-6	30.69	9.03	10.59	12.75	11.75	8.25	8.88	0.44 × 0.69
63-26-250-6	30.69	9.03	10.59	12.75	11.75	8.25	8.88	0.44 × 0.69
63-28-275-6	29.06	9.03	23.00	25.81	24.82	6.62	8.88	0.44 × 0.69
63-28-310-6	30.69	9.03	23.00	25.81	24.82	8.25	8.88	0.44 × 0.69
63-28-315-6	30.69	9.03	35.41	35.25	37.23	8.25	8.88	0.56 × 0.69

SPECIFICATIONS AND PRICING

Sola No.	Voltage Rating		VA	App. Ship. Wt. (Lbs.)	Fig. No.	Net Each, Lots of			
	Regulated Output	Input Range				1-4	5-9	10-24	25-49
63-23-112-4	120	95–130 × 175–235 × 190–260 × 380–520	120	16	2	**$ 171.00**	**$ 160.75**	**$ 155.60**	**$ 150.50**
63-23-125-4			250	27	2	**224.00**	**210.60**	**203.85**	**197.15**
63-23-150-4			500	34	2	**343.00**	**322.45**	**312.15**	**301.85**
63-23-175-4			750	44	2	**436.00**	**409.85**	**396.80**	**383.70**
63-23-210-4			1000	55	2	**521.00**	**489.75**	**474.15**	**458.50**
63-23-215-4			1500	83	3	**701.00**	**658.95**	**637.80**	**616.90**
63-23-220-4			2000	98	3	**887.00**	**833.80**	**807.20**	**780.60**
63-25-230-3	120 × 240	95–130 × 175–235 190–260 × 380–520	3000	127	3	**1313.00**	**1234.25**	**1194.85**	**1155.45**
63-26-230			3000	127	3	**1313.00**	**1234.25**	**1194.85**	**1155.45**
63-25-250-6			5000	215	4	**2053.00**	**1929.85**	**1868.25**	**1806.65**
63-26-250-6			5000	215	4	**2053.00**	**1929.85**	**1868.25**	**1806.65**
63-28-275-6	120 × 240	190–260 × 380–520	7500	340	3	**2525.00**	**2373.50**	**2297.75**	**2222.00**
63-28-310-6			10,000	410	3	**4114.00**	**3867.20**	**3743.75**	**3620.35**
63-28-315-6			15,000	615	†	**5060.00**	**4756.40**	**4604.60**	**4452.80**

†Triplex assembly, same as Figure 4 except addition of one more transformer.

GS SOLA ELECTRIC

HARMONIC NEUTRALIZED TRANSFORMERS

CVS HARMONIC NEUTRALIZED TYPE

Contains less than 3% total harmonic content in output at full load operation. Recommended for all AC applications where harmonics can affect operation. Only constant-voltage transformers with built-in harmonic neutralizing circuits. Use no filters; do not need extra capacitors or noisy chokes. Smaller and more rugged than transformers employing filters for waveshape improvement. ±1/2% regulation for an input range of ±15% of nominal range. Due to their low harmonic content and inherent isolation from line, Sola CVS transformers are ideally suited for use with electronic test equipment and mini-computers. All units contain non-PCB components.

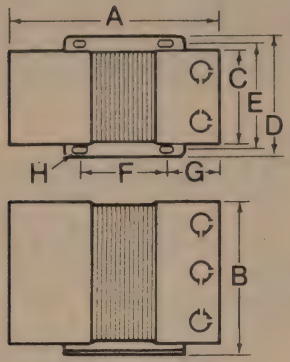


Fig. 1

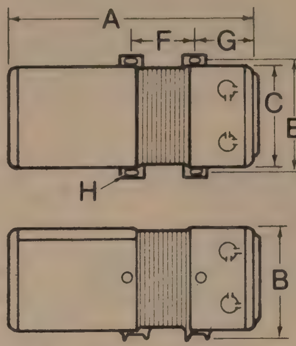


Fig. 2

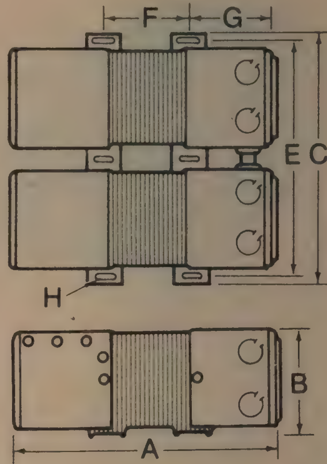


Fig. 3

Reg. Output	Input Range	VA	Sola Number	Fig.	Dimensions, Inches A	B	C	D	E	F	G	H	Each
60 HERTZ, SINGLE PHASE, UL LISTED													
120	95–130	30	**23-13-030-2**	1	6 1/8	5 3/16	3 1/4	4	3 1/2	3	1 3/4	7/32 × 19/32	$ 102.00
	95–130	60	**23-13-060-2**	1	6 15/16	5 3/16	3 1/4	4	3 1/2	3	1 3/4	7/32 × 19/32	120.00
	190–260 × 380–520	60	**23-23-060-2**	1	6 15/16	5 3/16	3 1/4	4	3 1/2	3	1 3/4	7/32 × 19/32	131.00
	95–130 × 190–260	120	**23-22-112-2**	1	8 1/8	5 3/16	3 1/4	4	3 1/2	3	2 7/16	7/32 × 19/32	155.00
	190–260 × 380–520	120	**23-23-112-2**	1	8 1/8	5 3/16	3 1/4	4	3 1/2	3	2 7/16	7/32 × 19/32	163.00
	95–130 × 190–260	250	**23-22-125**	1	9 5/8	7 7/16	4 1/2	5 3/8	4 3/4	4 1/8	2 3/16	5/16 × 11/16	210.00
	190–260 × 380–520	250	**23-23-125**	1	9 7/8	7 7/16	4 1/2	5 3/8	4 3/4	4 1/8	2 3/16	5/16 × 11/16	222.00
	95–130 × 190–260	500	**23-22-150**	1	12 7/16	6 7/16	7 25/32	9	8 1/8	5 3/8	3 1/16	3/8 × 13/16	340.00
120 × 240	190–260 × 380–520	500	**23-26-150**	1	12 7/16	6 7/16	7 25/32	9	8 1/8	5 3/8	3 1/16	3/8 × 13/16	340.00
	95–130 × 175–235 × 190–260	750	**23-25-175**	1	16 3/16	6 7/16	7 25/32	9	8 1/8	5 3/8	2 9/32	3/8 × 13/16	435.00
	95–130 × 175–235 × 190–260	1000	**23-25-210**	1	17 7/8	6 7/8	7 25/32	9	8 1/8	5 3/8	4 1/16	3/8 × 13/16	531.00
	190–260 × 380–520	1000	**23-26-210**	1	17 7/8	6 7/8	7 25/32	9	8 1/8	5 3/8	4 1/16	3/8 × 13/16	531.00
	95–130 × 175–235 × 190–260	1500	**23-25-215**	2	18 7/16	9 1/32	10 9/16	. . .	11 3/4	3	5 3/16	7/16 × 11/16	714.00
	95–130 × 175–235 × 190–260	2000	**23-25-220**	2	19 5/16	9 1/32	10 9/16	. . .	11 3/4	3 7/8	5 3/16	7/16 × 11/16	905.00
	190–260 × 380–520	2000	**23-26-220**	2	19 5/16	9 1/32	10 9/16	. . .	11 3/4	3 7/8	5 3/16	7/16 × 11/16	905.00
	95–130 × 170–235 × 190–260	3000	**23-25-230-3**	2	20 11/16	9 1/16	10 9/16	. . .	11 3/4	5 1/4	5 3/16	7/16 × 11/16	1254.00
	190–260 × 380–520	3000	**23-26-230**	2	20 11/16	9 1/32	10 9/16	. . .	11 3/4	5 1/4	5 3/16	7/16 × 11/16	1254.00
	95–130 × 175–235 × 190–260	5000	**23-25-250-6**	2	30 11/16	9 1/32	10 9/16	12 3/4	11 3/4	8 1/4	8 7/8	7/16 × 11/16	1959.00
	190–260 × 380–520	5000	**23-26-250-6**	2	30 11/16	9 1/32	10 9/16	12 3/4	11 3/4	8 1/4	8 7/8	7/16 × 11/16	1959.00
	190–260 × 380–520	7500	**23-28-275-6**	3	29 1/16	9 1/32	22 13/16	25 13/16	24 13/16	6 5/8	8 7/8	7/16 × 11/16	2315.00
	190–260 × 380–520	10,000	**23-28-310-6**	3	30 11/16	9 1/32	22 13/16	25 13/16	24 13/16	8 1/4	8 7/8	7/16 × 11/16	3926.00
	190–260 × 380–520	15,000	**23-28-315-6**	†	30 11/16	9 3/8	35 9/16	38 1/4	37 7/32	8 1/4	8 7/8	9/16 × 1 1/16	4828.00
50 HERTZ, SINGLE PHASE													
110 × 220	90–130 × 180–260	60	**24-551-2**	1	7 3/4	5 3/16	3 5/16	4	3 1/2	3	2 7/16	7/32 × 19/32	$ 133.00
	90–130 × 180–260	120	**24-552-2**	1	8 13/16	7 7/16	4 1/2	5 3/8	4 3/4	4 1/8	2 3/16	5/16 × 11/16	171.00
	90–130 × 180–260	250	**24-553-2**	1	11 7/16	6 7/16	7 25/32	9	8 1/8	5 5/8	3 1/16	3/8 × 13/16	231.00
	90–130 × 180–260	500	**24-554-2**	1	13 5/16	6 7/16	7 25/32	9	8 1/8	5 5/8	3 1/16	3/8 × 13/16	345.00
	90–130 × 180–260	1000	**24-555-2**	2	18 7/8	9 1/32	10 9/16	. . .	11 3/4	3 1/2	5 3/16	7/16 × 11/16	597.00
	90–130 × 180–260	2000	**24-556-2**	2	21 1/16	9 1/32	10 9/16	. . .	11 3/4	5 11/16	5 3/16	7/16 × 11/16	952.00
	90–130 × 180–260	3000	**24-557-2**	2	27	9 1/32	10 9/16	. . .	11 3/4	8 1/4	5 3/16	7/16 × 11/16	1459.00
	90–130 × 180–260	5000	**24-572-2**	3	22 3/8	9 1/32	25 13/16	. . .	24 13/16	7	5 3/16	7/16 × 11/16	2288.00

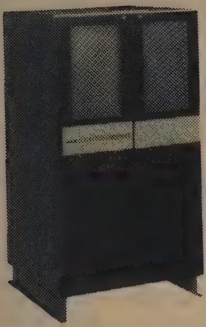
†Triplex assembly; same as Fig. 3, except addition of one more transformer.

CORD/RECEPTACLE ADAPTER KITS

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing.

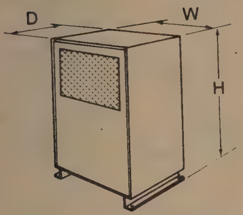
Adapter Code	Sola No.	Input Cord	Output Connections	Net Each
a	**999-105**	2-Wire	2-Wire receptacle	**$14.05**
a	**999-019**	3-Wire	3-Wire receptacle	**12.90**

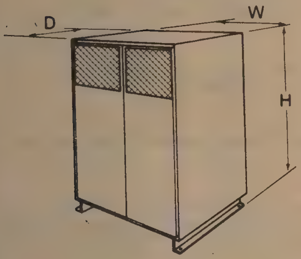
SOLATRON/ACUVOLT FOR COMPUTERS



GENERAL SPECIFICATIONS

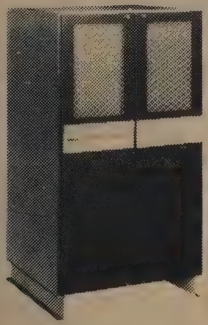
Input Voltage: 208–230 or 480 VAC nominal, 3-phase, line-to-line. **Range:** +10%. **Regulation:** ±1% for any combination of line, load, thermal drift, warm-up and frequency; capable of remote sensing. **Frequency:** 57 to 63 Hz. **Output Voltage Adjustability:** From 208 to 230 VAC. **Transient Response Time:** Starts immediately; completes within 5 cycles. **Power Efficiency (Watts):** 95% typical. **VA Efficiency:** 75% typical. **Load Power Factor:** With little derating, .75 lagging to .95 leading; without derating, .95 lagging to unity. **Regulation:** Line, ±1/4%; load, ±1/4%; line and load, ±1/2%. **Typical Harmonics:** Balanced line and load, 3%; unbalanced line and/or load, 6%. UL listed.





Output KVA Rating	Sola Number*	Sola Model Number	Approx. Shp. Wt. (Lbs.)	Fig.	Dimensions (Ins.) H	Dimensions (Ins.) W	Dimensions (Ins.) D	Net Each
THREE PHASE—60 Hz 208-230 VAC								
10	39-59-310	AC13T10	540	1	50	27	20	$ 7172.00
15	39-59-315	AC13T15	700	1	50	27	20	8028.00
25	39-59-325	AC13T25	1,080	2	65	36	27	8839.00
50	39-59-350	AC13T50	1,510	2	65	36	27	14114.00
75	39-59-375	AC13T75	1,785	2	65	36	27	21047.00
Regulators listed below consist of 3 cabinets; size and weight specifications are for each cabinet.								
100	39-59-410	AC13T100	1,200	2	65	36	27	$26877.00
150	39-59-415	AC13T150	1,385	2	65	36	27	39091.00
225	39-59-422	AC13T225	1,585	2	65	36	27	53938.00
300	39-59-430	AC13T300	1,790	2	65	36	27	78182.00
THREE PHASE—60 Hz/480 VAC								
10	39-69-310	AC23T10	695	1	50	27	20	$ 7525.00
15	39-69-315	AC23T15	746	1	50	27	20	8451.00
25	39-69-325	AC23T25	1,300	2	65	36	27	9261.00
50	39-69-350	AC23T50	1,848	2	65	36	27	14817.00
75	39-69-375	AC23T75	2,020	2	65	36	27	22109.00
Regulators listed below consist of 3 cabinets; size and weight specifications are for each cabinet.								
100	39-69-410	AC23T100	1,200	2	65	36	27	$28244.00
150	39-69-415	AC23T150	1,470	2	65	36	27	41093.00
225	39-69-422	AC23T225	1,585	2	65	36	27	56604.00
300	39-69-430	AC23T300	1,790	2	65	36	27	82070.00
THREE PHASE—50 Hz/208-230 VAC								
8	39-58-308	AC13T08-50	540	1	50	27	20	$ 6830.00
12	39-58-312	AC13T12-50	700	1	50	27	20	7645.00
20	39-58-320	AC13T20-50	1,510	2	65	36	27	8839.00
65	38-58-365	AC13T65-50	1,785	2	65	36	27	20044.00

SOLA® STEP-DOWN TRANSFORMERS FOR USE WITH COMPUTER LINE SOLATRON/ACUVOLT



Sola® step-down transformers must be used with computer line Solatron/Acuvolt whenever service voltage is above 208 volts. Solatron/Acuvolt regulators can not be used to step line voltage up or down, except within their specified output adjustment range. Further information available on request.

For Use With Solatron/ Acuvolt No.	Three-Phase Primary 240 V Delta		Three-Phase Primary 480 V Delta		Three-Phase Primary 600 V Delta	
	Sola No.	Net Each, 1-4	Sola No.	Net Each, 1-4	Sola No.	Net Each, 1-4
39-59-310	35-21-315	$ 803.00	35-31-315	$ 703.00	35-41-315	$ 803.00
39-59-315	35-21-325	1096.00	35-31-325	936.00	35-41-325	1096.00
39-59-325	35-21-337	1366.00	35-31-337	1308.00	35-41-337	1366.00
39-59-350	35-21-375	2449.00	35-31-375	2071.00	35-41-375	2449.00
39-59-375	35-21-411	3070.00	35-31-411	2642.00	35-41-411	3070.00
39-59-410	35-21-415	3751.00	35-31-415	3229.00	35-41-415	3751.00
39-59-415	35-21-422	4723.00	35-31-422	4067.00	35-41-422	4723.00
39-59-422	35-21-430	5548.00	35-31-430	5031.00	35-41-430	5548.00
39-59-430	35-21-450	9244.00	35-31-450	8382.00	35-41-450	9249.00

Our Stocks are Complete and up to date.

Write for information on new or unlisted items.

SOLA ELECTRIC

POWER CENTERS AND POWER LINE MONITORS

POWER CENTERS

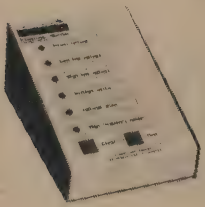
The Power Center provides instantaneous voltage regulation and ultraisolation from both transverse and common mode noise for any type of load. It also suppresses transients, protects against overloads, and serves as a portable, dedicated power line. The Sola "Micro/Mini" is particularly applicable in systems involving mini or microcomputers, POS terminals, microprocessors, or data terminals—where noise and transients cause errors, or low voltage and short term disruptions can result in loss of memory. The output waveshape is sinusoidal and contains less than 3% harmonic distortion, making it ideal for any electronic load. Common mode noise rejection exceeds 120 dB for the regulator, while transverse noise rejection is better than 60 dB—true ultra-isolation. Brownout protection is a real bonus feature, input line variations as great as 15% are instantaneously regulated to a maximum output deviation of ±3%. The output will remain within NEMA voltage specifications for input voltages as low as 65% of nominal.

SOLA POWER CENTER

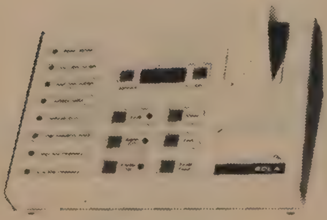
Output Rating VA	Nominal Output Voltage	Input Voltage Range	Sola Model Number	Shipping Wt., Lbs.	Net Each
		60 Hz SINGLE PHASE			
5000	120 × 208 × 240	95 × 130 × 175 × 235 × 190 × 260 × 280 × 520	**63-23-250-7**	373	**Prices on Request**
7500	120 × 208 × 240	175 × 235 × 190 × 260 × 380 × 520	**63-28-275-7**	514	
10000	120 × 208 × 240	175 × 235 × 190 × 260 × 380 × 520	**63-28-310-7**	600	
15000	120 × 208 × 240	175 × 235 × 190 × 260 × 380 × 520	**63-28-315-7**	816	
		60 Hz THREE PHASE			
7500	208Y/120	Delta 175 × 235 × 190 × 260 × 380 × 520	**63-28-275-3**	514	**Prices on Request**
10000	208Y/120	Delta 175 × 235 × 190 × 260 × 380 × 520	**63-28-310-3**	600	
15000	208Y/120	Delta 175 × 235 × 190 × 260 × 380 × 520	**63-28-315-3**	816	

POWER LINE MONITORS

The Power Line Monitor identifies and records dangerous or disruptive power line disturbances that can cause sensitive electronic equipment to malfunction, lose memory, or even crash. No need to call an electrician or serviceman to diagnose the source of trouble. The Monitor pinpoints power failures, low line voltage, high line voltage, voltage spikes, voltage drops, or high frequency noise. After the audible alert sounds, turn the monitor over to find the probable causes and solutions for the indicated problem. The Power Line Monitor can be used to examine potential sites for electronic equipment or to monitor power already being fed to minicomputers, POS terminals, medical equipment, test equipment, word processors, or communications systems. The unit is completely portable. To install, simply plug into any standard power outlet. Models are available with and without a thermal printer to record occurrences.



Standard Model



With Printer

PRESET ALARM THRESHOLDS

Power Failure	80 V rms, 5 cycles, 80 msec.
Low Line Voltage:	108 V rms for 5 cycles, 80 msec.
High Line Voltage:	125 V rms for 5 cycles, 80 msec.
Voltage Drop:	80 V rms for 1 cycle, 16 msec.
Voltage Spike:	200 V peak for 10 μsec.
High Frequency Noise:	2 V p-p for more than 100 msec. at 20 kHz.
High Line Frequency:	More than 61 Hz ±0.5 Hz for 2 sec. or more. (Printer model only)
Low Line Frequency:	Less than 59 Hz ±0.5 Hz for 2 sec. or more. (Printer model only)
Volatge Tolerances:	±3%.

	Power Line Monitor	Power Line Monitor with Thermal Printer
Connections:	3-wire grounded cord	3-wire grounded cord
Control Buttons:	One "Clear" and one "Test" Button	"Clear", "Test", "Lock", "Alarm", "Printer", "Set", "Paper Feed", "Clock Advance"
Indications:	Six red LED's indicating power failure, low line voltage, high line voltage, voltage spike, voltage drop, and high frequency noise.	Eight red LED's indicating power failure, low line voltage, high line voltage, voltage spike, voltage drop, high frequency noise, high line frequency, low line frequency, audible alarm, thermal printer, and external alarm contacts.
Dimensions:	3" × 5" × 7"	11 1/8" × 8 3/4" × 3 3/8"
Weight:	2 lbs.	6 1/2 lbs.

Sola Number	Voltage	Frequency	Net Each 1-9
	STANDARD MODELS		
80-001-60	120 V	60 Hz	**$295.00**
80-001-50	240 V	50 Hz	**295.00**
	WITH THERMAL PRINTER		
80-003-60	120 V	60 Hz	**$935.00**
80-004-50	220 V	50 Hz	**935.00**
80-005-50	240 V	50 Hz	**935.00**

SOLA ELECTRIC

SOLATRON/ACUVOLT LINE VOLTAGE REGULATORS

SOLATRON/ACUVOLT 0.5% LINE-VOLTAGE REGULATORS

The Solatron/Acuvolt LVR static-magnetic line voltage regulator combines fast response, "tight" regulation, adjustable output, remote sensing and high KVA capacity, using no moving parts. **Regulation:** ±0.5% for line changes; ±1% max. for any combination of line, load, temperature and frequency changes within limits. **Variation Limits:** Frequency, 57–63 Hz, zero load to full load; temperature, +15° to +40°. **Output Voltage:** Adjustable ±10% of nominal output.

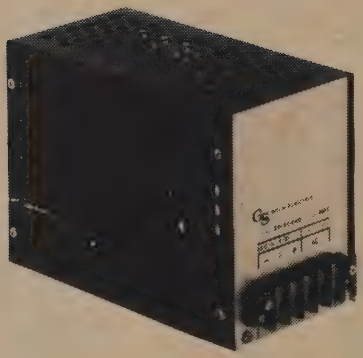
Max. Output KVA	Output Volts	Input Voltage Range	Sola Number	Fig.	Dimensions, Inches					Shpg. Wt. Lbs.	Net Each
					A	B	C	D	E		
0.5	108–132	+10–20%	**33-16-150**	A	13⅞	5⅜	3½	...	...	40	**$ 996.00**
1	108–132	+10–20%	**33-16-210**	A	16⅜	5⅜	3½	...	...	58	**1091.00**
2	108–132	+10–20%	**33-16-220-6**	B	18⅝	6¼	...	...	...	81	**1460.00**
2	208–250	+10–20%	**33-26-220-6**	B	18⅝	6¼	...	...	...	81	**1460.00**
3	108–132	+10–20%	**33-16-230-6**	B	19½	6¼	...	...	...	95	**1679.00**
3	208–250	+10–20%	**33-26-230-6**	B	19½	6¼	...	...	...	95	**1679.00**
5	108–132	+10–20%	**33-16-250-6**	B	21⅜	8¼	...	...	...	127	**2187.00**
5	208–250	+10–20%	**33-26-250-6**	B	21⅜	8¼	...	...	...	127	**2187.00**
5	432–528	+10–20%	**33-46-250-6**	B	21⅜	8¼	...	...	...	127	**2187.00**
7.5	108–132	+10–20%	**33-16-275-6**	B	23¾	10¼	...	...	...	168	**2708.00**
7.5	208–250	+10–20%	**33-26-275-6**	B	23¾	10¼	...	...	...	168	**2708.00**
7.5	432–528	+10–20%	**33-46-275-6**	B	23¾	10¼	...	...	...	168	**2708.00**
10	108–132	+10–20%	**33-16-310-6**	B	23¾	10¼	...	...	...	193	**2916.00**
10	208–250	+10–20%	**33-26-310-6**	B	23¾	10¼	...	...	...	193	**2916.00**
10	432–528	+10–20%	**33-46-310-6**	B	23¾	10¼	...	...	...	193	**2916.00**
15	108–132	+10–20%	**33-16-315**	C	23⅝	9	...	...	...	400	**3177.00**
15	188–228	+10–20%	**33-06-315**	C	23⅝	9	...	...	...	400	**3177.00**
15	216–264	+10–20%	**33-26-315**	C	21 15/16	7⅜	...	...	...	400	**3177.00**
15	432–528	+10–20%	**33-46-315**	C	22 7/16	7 13/16	...	...	...	400	**3177.00**
25	108–132	+10–20%	**33-16-325**	C	31⅝	9¾	...	...	...	520	**4655.00**
25	188–228	+10–20%	**33-06-325**	C	31⅝	9¾	...	...	...	520	**4655.00**
25	216–264	+10–20%	**33-26-325**	C	31⅝	9¾	...	...	...	520	**4655.00**
25	432–528	+10–20%	**33-46-325**	C	31⅝	9¾	...	...	...	520	**4655.00**
33	108–132	±10%	**31-16-333-5**	E	42	34	28	21	20	700	**6079.00**
33	216–264	±10%	**31-26-333-5**	E	42	34	28	21	20	700	**6079.00**
33	432–528	±10%	**31-46-333-5**	E	42	34	28	21	20	700	**6079.00**
37.5	108–132	±10%	**31-16-337**	C	24⅜	9¾	...	...	...	525	**5865.00**
37.5	216–264	±10%	**31-26-337**	C	24⅜	9¾	...	...	...	525	**5865.00**
37.5	432–528	±10%	**31-46-337**	C	24⅜	9¾	...	...	...	525	**5865.00**
50	114–126	±10%	**31-16-350-5**	E	42	34	28	21	20	1050	**6601.00**
50	228–252	±10%	**31-26-350-5**	E	42	34	28	21	20	1050	**6601.00**
50	456–504	±10%	**31-46-350-5**	E	42	34	28	21	20	1050	**6601.00**
75	114–126	±10%	**31-16-375-5**	E	55	37	34	21	26	1500	**8270.00**
75	228–252	±10%	**31-26-375-5**	E	55	37	34	21	26	1500	**8270.00**
75	456–504	±10%	**31-46-375-5**	E	55	37	34	21	26	1500	**8270.00**
100	114–126	±10%	**31-16-410-5**	E	55	37	34	21	26	1900	**9901.00**
100	228–252	±10%	**31-26-410-5**	E	55	37	34	21	26	1900	**9901.00**
100	456–504	±10%	**31-46-410-5**	E	55	37	34	21	26	1900	**9901.00**
150	114–126	±10%	**31-16-415-5**	E	65	42	38	24	30	2500	**11856.00**
150	228–252	±10%	**31-26-415-5**	E	65	42	38	24	30	2500	**11856.00**
150	456–504	±10%	**31-46-415-5**	E	65	42	38	24	30	2500	**11856.00**
200	114–126	±10%	**31-26-420-5**	E	43	74	48	...	...	3100	**13437.00**
200	228–252	±10%	**31-46-420-5**	E	43	74	48	...	...	3100	**13437.00**
250	228–252	±10%	**31-26-425-5**	E	43	74	48	...	...	3600	**14821.00**
250	456–504	±10%	**31-46-425-5**	E	43	74	48	...	...	3600	**14821.00**
THREE PHASE DELTA—60 Hz ±3 Hz											
50	216–264	±10%	**37-29-350-5**	E	35	36	36½	...	...	1200	**9556.00**
50	432–528	±10%	**37-49-350-5**	E	35	36	36½	...	...	1200	**9556.00**
75	216–264	±10%	**37-29-375-5**	E	44½	46	52½	...	...	1700	**11922.00**
75	432–528	±10%	**37-49-375-5**	E	44½	46	52½	...	...	1700	**11922.00**
100	216–264	±10%	**37-29-410-5**	E	44½	46	52½	...	...	2100	**15552.00**
100	432–528	±10%	**37-49-410-5**	E	44½	46	52½	...	...	2100	**15552.00**
150	216–264	±10%	**37-29-415-5**	E	50	56	60	...	...	2700	**18546.00**
150	432–528	±10%	**37-49-415-5**	E	50	56	60	...	...	2700	**18546.00**
225	216–264	±10%	**37-29-422-5**	E	56	60	62½	...	...	3700	**20667.00**
225	432–528	±10%	**37-49-422-5**	E	56	60	62½	...	...	3700	**20667.00**
300	216–264	±10%	**37-29-430-5**	E	56	60	62½	...	...	4500	**23047.00**
300	432–528	±10%	**37-49-430-5**	E	56	60	62½	...	...	4500	**23047.00**
500	216–264	±10%	**37-29-450-5**	E	72	72	66	...	...	6000	**29766.00**
500	432–528	±10%	**37-49-450-5**	E	72	72	66	...	...	6000	**29766.00**
750	432–528	±10%	**37-49-475-5**	E	78	80	72	...	...	8100	**40003.00**

CONTINUED ON NEXT PAGE

SOLATRON/ACUVOLT 0.5% LINE-VOLTAGE REGULATORS (CONTINUED)

Max. Output KVA	One Phase Output Volts	Input Voltage Range	Sola Number	Fig.	Dimensions, Inches A	B	C	D	E	Shpg. Wt. Lbs.	Net Each
THREE PHASE WYE—60 Hz ±3 Hz											
3	108–132	+10–20%	39-06-230	D	24	19	16	17⅛	11	265	$ 3165.00
6	108–132	+10–20%	39-06-260-6	D	43	29	19½	26¾	14½	325	4011.00
9	108–132	+10–20%	39-06-290-6	D	43	29	19½	26¾	14½	370	4463.00
15	108–132	+10–20%	39-06-315-6	D	43	29	19½	26¾	14½	452	5475.00
15	250–304	+10–20%	39-46-315-6	D	43	29	19½	26¾	14½	452	5475.00
22.5	108–132	+10–20%	39-06-322-6	D	43	29	19½	26¾	14½	558	6649.00
22.5	250–304	+10–20%	39-46-322-6	D	43	29	19½	26¾	14½	558	6649.00
30	108–132	+10–20%	39-06-330-6	D	43	29	19½	26¾	14½	610	7413.00
30	250–304	+10–20%	39-46-330-6	D	43	29	19½	26¾	14½	610	7413.00
45	108–132	+10–20%	39-06-345	D	51½	36	27	33	16	1300	8755.00
45	250–304	+10–20%	39-46-345	D	51½	36	27	33	16	1300	8755.00
50	114–126	±10%	39-06-375	E	35	36	36½	...	...	1200	11615.00
50	264–290	±10%	39-46-375	E	35	36	36½	...	...	1200	11615.00
75	108–132	+10–20%	37-06-350-5	D	51½	36	27	33	16	1645	9556.00
75	250–304	+10–20%	37-46-350-5	D	51½	36	27	33	16	1645	9556.00
75	114–126	±10%	37-06-375-5	E	46	52½	44½	16½	18	1700	11774.00
75	264–290	±10%	37-46-375-5	E	46	52½	44½	16½	18	1700	11774.00
100	114–126	±10%	37-06-410-5	E	44½	46	52½	...	...	2100	15139.00
100	264–290	±10%	37-46-410-5	E	44½	46	52½	...	...	2100	15139.00
150	114–126	±10%	37-06-415-5	E	54	60	50	19¼	22	3450	18546.00
150	264–290	±10%	37-46-415-5	E	54	60	50	19¼	22	3450	18546.00
225	114–126	±10%	37-06-422-5	E	60	62½	56	21	20	3700	20667.00
225	264–290	±10%	37-46-422-5	E	60	62½	56	21	20	3700	20667.00
300	114–126	±10%	37-06-430-5	E	60	62½	56	21	20	4800	23047.00
300	264–290	±10%	37-46-430-5	E	60	62½	56	21	20	4800	23047.00
500	114–126	±10%	37-06-450-5	E	72	66	60	22¼	26	6000	29766.00
500	264–290	±10%	37-46-450-5	E	72	66	60	22¼	26	6000	29766.00
750	264–209	±10%	37-46-475-5	E	78	80	72	...	...	8100	40003.00

CVDC SERIES CONSTANT VOLTAGE SUPPLIES



Rugged, simple and dependable power supplies in both modular and rack-mounted styles. Designed for computers, data processing, measurement, telemetering and wherever isolation from line fluctuation is required. Contains a constant-voltage transformer, rectifier and filter circuit. Provides tight regulation, quick response, isolation and current limiting. **Regulation:** ±1% or less for input variations as great as ±15%. **Rated Input Voltage:** 100–130 volts, 60 Hz. **Response Time:** 25 milliseconds. **Load Regulation:** Less than 4% from 20% to full load. **Efficiency:** Approx. 75%. **Ripple:** Less than 1%. **Operating Temperature:** 0° C to +50° C. Units may be connected in series or parallel for higher current or voltage.

MODULAR STYLE

Sola Number	Output V.	A.	% Load Regulation 25% f.l.	50% f.l.	Size, Inches H.	W.	D.	Net Each
28-04-315	4	15	0.8	0.5	3.5	5.25	13	$175.95
28-05-315	5.2	15	0.8	0.5	3.5	5.25	13	175.95
28-06-315	6.3	15	0.8	0.5	3.5	5.25	13	175.95
28-10-312	10	12	1.0	0.6	3.5	5.25	13	175.95
28-12-310	12	10	1.0	0.6	3.5	5.25	13	175.95
28-15-280	15	8	1.3	0.8	3.5	5.25	13	175.95
28-18-267	18	6.7	1.3	0.8	3.5	5.25	13	175.95
28-24-250	24	5	1.7	1.0	3.5	5.25	13	175.95
28-28-243	28	4.3	2.0	1.2	3.5	5.25	13	175.95
28-48-225	48	2.5	3.4	2.0	3.5	5.25	13	175.95
28-04-325	4	25	0.8	0.5	6.9	4.94	9.75	261.60
28-05-325	5.2	25	0.8	0.5	6.9	4.94	9.75	261.60
28-06-325	6.3	25	0.8	0.5	6.9	4.94	9.75	261.60
28-10-318	10	18	1.0	0.6	6.9	4.94	9.75	261.60
28-12-315	12	15	1.0	0.6	6.9	4.94	9.75	261.60
28-15-312	15	12	1.0	0.6	6.9	4.94	9.75	261.60
28-18-310	18	10	1.0	0.6	6.9	4.94	9.75	261.60
28-24-280	24	8	1.2	0.7	6.9	4.94	9.75	261.60
28-28-270	28	7	1.2	0.7	6.9	4.94	9.75	261.60
28-48-240	48	4	1.7	1.0	6.9	4.94	9.75	261.60

RACK MOUNTING STYLE

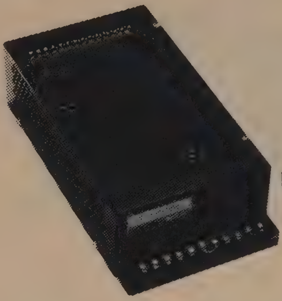
Sola Number	Output V.	A.	% Load Regulation 20% f.l.	50% f.l.	Size, Inches H.	W.	D.	Net Each
28-1513-2	6	10	9	7	3½	...	7⅝	$308.35
28-2123-1	6	15	10	7	5¼	...	7¼	356.20
28-1514-2	12	5	7	5	3½	...	7⅝	308.35
28-2124-1	12	10	9	5	5¼	...	7¼	308.35
28-1845-2	12	15	10	7	5¼	...	7¼	356.20
28-1515-2	18	5	5	4	3½	...	7⅝	308.35
28-2125-1	18	10	7	5	5¼	...	7¼	356.20
28-1024-1	24	6	5	4	5¼	...	9¾	308.35
28-2126-1	24	10	6	4	5¼	...	8¾	356.20
28-1203-2	24	15	7	5	7	...	7¼	382.90
28-2127-1	24	25	7	5	8¾	...	9	498.65
28-626-2	28	8	6	4	5¼	...	8¾	356.20
28-2128-1	28	15	7	5	7	...	7¼	382.90
28-1048	48	4	3.5	2.5	5¼	...	9¾	308.35
28-1561-2	48	10	4	2	5¼	...	9¾	356.20
28-2129-1	48	20	4	2.5	8¾	...	9¾	498.65
28-1125-1	125	2	2.5	1.5	5¼	...	9¾	356.20
28-1150-1	150	2	2	1.5	5¼	...	9¾	356.20
28-1200	200	1	3	2	5¼	...	9¾	356.20
28-1250	250	1	3	2	5¼	...	9¾	356.20

SOLA ELECTRIC SWITCHING POWER SUPPLIES

150 WATT SWITCHING POWER SUPPLIES

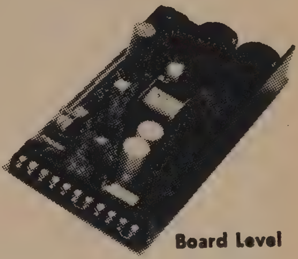
- Single, triple, and quad outputs
- Three board levels—PC board only, open frame, and enclosed
- Multiple primaries
- Brownout protection
- Overcurrent voltage protection
- Remote sensing
- Soft start
- UL recognized

Input Voltage: 90-135/180-257 VAC rms. **Input Frequency:** 50-400 Hz. **Power Walk-in:** 500 msec maximum to full output. **Input Current Limit:** 4 A at 125 VAC/2.5 A at 240 VAC with external fuse. **Ride Through at Full Load:** 10 msec at 100 VAC rms input. **Output VA Rating:** 150 Watts.


Enclosed

	Single Output	Triple Output			Quad Output			
		Main Out.	Out. A	Out. B	Main Out.	Out. A	Out. B	Out. C
Initial Set Accuracy	...	1%	5%	5%	1%	5%	5%	5%†
Adjustment	±5%	±5%	No	No	±5%	No	No	No
Line Reg.	.25%	.25%	.5%	.5%	.25%	.5%	.5%	.5%
Load Reg.	.25%	.25%	1%	1%	.25%	1%	1%	1%
Current Max.	...	20A	4A	4A	20A	2A	2A	1A
Ripple	50mV	50mV	20mV	20mV	50mV	20mV	20mV	20mV
Transient Response	500µs	500µs	50µs	50µs	500µs	50µs	50µs	50µs
Efficiency	...	65%	65%	65%	65%	65%	65%	65%
Overshoot	2%	2%	2%	2%	2%	2%	2%	2%

†10% On Model 86-87-4310.


Board Level

Open Frame

Sola Model Number	Outputs, Volts/Amps				Net Each 1-4
	Main	A	B	C	
SINGLE OUTPUT					
86-05-330	5/30	...	...	...	$245.00
86-12-312	12/12.5	...	...	...	245.00
86-15-310	15/10	...	...	...	245.00
86-24-262	24/6.25	...	...	...	245.00
TRIPLE OUTPUT					
86-83-3320	5/20	12/2	−12/2	...	$309.00
86-85-3320	5/20	15/2	−15/2	...	309.00
86-84-3320	5/20	12/2	− 5/3	...	309.00
86-86-3320	5/20	15/2	− 5/3	...	309.00
86-83-3310	5/10	12/4	−12/4	...	309.00
86-85-3310	5/10	15/4	−15/4	...	309.00
QUAD OUTPUT					
86-87-4320	5/20	12/1	−12/1	24/1	$357.00
86-87-4310	5/10	12/1	−12/1	24/3	357.00
86-84-4320	5/20	12/1.5	−12/1.5	− 5/1.5	357.00
86-88-4320	5/20	15/1	−15/1	24/1	357.00
86-86-4320	5/20	15/1.5	−15/1.5	− 5/1.5	357.00

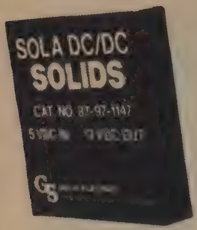
*For open frame, add suffix -1; for board level, add suffix -2.

WE CARRY MOST MAJOR BRANDS. IF YOU CAN'T FIND WHAT

YOU WANT, CALL OR WRITE US FOR INFORMATION.

GS SOLA ELECTRIC

SOLA SOLID POWER SUPPLIES


87-97-1147

84-05-210

85-15-2110

SOLA® SOLIDS PC BOARD DC SUPPLIES

A series regulated solid power supply specifically designed for printed circuit board mounting. Output can be shorted without damaging supply. **Input:** 115 VAC ±10 VAC, 50–400 Hz. **Output voltage accuracy:** ±2%. **Line/Load regulation:** .02% or 2.5 mV. **Operating temp.:** −25° C to +71° C.

Sola No.	DC Output		PARD mVrms	Size		
	Volts	Amps		H″	W″	D″
84-05-150	5	.5	1	.875	2.5	3.5
84-05-210	5	1.0	1	1.25	2.5	3.5
84-05-220	5	2.0	1	1.62	2.5	3.5
84-12-110	12	.1	.5	1.0	1.75	2.25
84-15-110	15	.1	.5	1.0	1.75	2.25
84-12-2112	±12	.12 ea.	.5	.875	2.5	3.5
84-12-2124	±12	.24 ea.	.5	1.25	2.5	3.5
84-12-2140	±12	.4 ea.	.5	1.62	2.5	3.5
84-15-2025	±15	.025 ea.	2.0	.875	2.5	3.5
84-15-2110	±15	.1 ea.	.5	.875	2.5	3.5
84-15-2120	±15	.2 ea.	.5	1.25	2.5	3.5
84-15-2135	±15	.35 ea.	.5	1.62	2.5	3.5

Sola No.	Net Each, Lots of			
	1-4	5-9	10-49	50-99
84-05-150	$ 81.60	$ 76.70	$ 71.85	$ 62.05
84-05-210	115.00	108.10	101.20	87.40
84-05-220	147.05	138.25	129.40	111.80
84-12-110	50.55	47.55	44.50	38.45
84-15-110	50.55	47.55	44.50	38.45
84-12-2112	81.60	76.70	71.85	62.05
84-12-2124	115.00	108.10	101.20	87.40
84-12-2140	165.80	155.85	145.90	126.05
84-15-2025	57.90	54.45	50.95	44.00
84-15-2110	81.60	76.70	71.85	62.05
84-15-2120	115.00	108.10	101.20	87.40
84-15-2135	165.80	155.85	145.90	126.05

CHASSIS MOUNT POWER MODULE

Convenient, direct chassis mount. Easy terminal strip connections. Low cost, off-the-shelf delivery. The 85 Series chassis-mount modular power supplies are designed for applications where printed circuit mounting is impractical or undesirable. Total epoxy encapsulation is an advantage where vibration or adverse atmospheric conditions exist. The convenience of threaded insert mounting and terminal strip connections allows easy prototyping and efficient one-shot design work.

Output Voltage (V)	Output Current (mA)	Source Effect Max.	Load Effect Max.	PARD (mV)	Sola Number
5	1000	±0.5%	±0.15%	2	85-05-210*
5	2000	±0.5%	±0.15%	2	85-05-220*
±12	240	±0.5%	±0.05%	1	85-12-2124
±12	400	±0.5%	±0.05%	1	85-12-2140
±15	100	±0.5%	±0.05%	1	85-15-2110
±15	200	±0.5%	±0.05%	1	85-15-2120
±15	350	±0.5%	±0.05%	1	85-15-2135
±15	500	±0.5%	±0.05%	1	85-15-2150

*With overvoltage protection; overvoltage crowbar set to trip at 6.2 V nominal.

PRICING

Sola Number	Net Each, Lots of			
	1-4	5-9	10-49	50-99
85-05-210	$132.55	$124.60	$116.65	$100.75
85-05-220	165.85	155.90	145.95	126.05
85-12-2124	132.55	124.60	116.65	100.75
85-12-2140	181.90	171.00	160.10	138.25
85-15-2110	107.70	101.25	94.80	81.85
85-15-2120	132.55	124.60	116.65	100.75
85-15-2135	181.90	171.00	160.10	138.25
85-15-2150	208.00	195.55	183.05	158.10

SOLA DC/DC SOLIDS

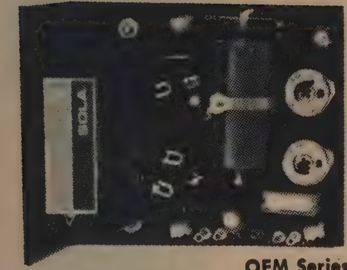
DC/DC Solid power supplies series 87 provide line/load regulation while Pi-type input filter minimizes reflected input ripple current. Available in single and dual outputs. **Output Voltage Accuracy:** ±0.5%. **Max. Oper. Temp.:** −25° C to 71° C.

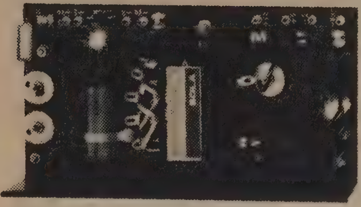
Line Regulation: ±0.02% full range max. **Load Regulation:** For single output models ±0.04% (NL-FL) max. for dual output models ±0.02% (NL-FL) max.

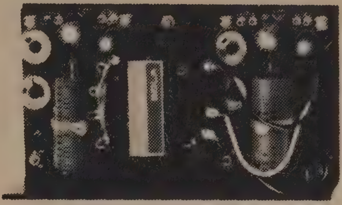
Sola No.	Input Voltage	Output Voltage	Output Current	Input Current Full Load/ No Load (typical)	Fault Mode Current (typical)	Reflected Ripple Current	Net Each, Lots of			
							1-4	5-9	10-49	50-99
87-99-1210	5 VDC	5 VDC	1000 mA	1540 mA/25 mA	2300 mA	54 mA p-p	$135.50	$127.40	$119.25	$103.00
87-98-1160	5 VDC	9 VDC	600 mA	1660 mA/30 mA	2490 mA	58 mA p-p	135.50	127.40	119.25	103.00
87-97-1147	5 VDC	12 VDC	470 mA	1735 mA/30 mA	2600 mA	61 mA p-p	135.50	127.40	119.25	103.00
87-96-1140	5 VDC	15 VDC	400 mA	1845 mA/35 mA	2770 mA	64 mA p-p	135.50	127.40	119.25	103.00
87-97-2123	5 VDC	±12 VDC	±230 mA	1650 mA/132 mA	2475 mA	58 mA p-p	144.10	135.45	126.85	109.55
87-96-2119	5 VDC	±15 VDC	±190 mA	1700 mA/136 mA	2550 mA	60 mA p-p	144.10	135.45	126.85	109.55
87-79-1210	12 VDC	5 VDC	1000 mA	640 mA/14 mA	960 mA	22 mA p-p	135.50	127.40	119.25	103.00
87-78-1160	12 VDC	9 VDC	600 mA	690 mA/15 mA	1035 mA	24 mA p-p	135.50	127.40	119.25	103.00
87-77-1147	12 VDC	12 VDC	470 mA	725 mA/15 mA	1080 mA	26 mA p-p	135.50	127.40	119.25	103.00
87-76-1140	12 VDC	15 VDC	400 mA	770 mA/17 mA	1150 mA	27 mA p-p	135.50	127.40	119.25	103.00
87-77-2123	12 VDC	±12 VDC	±230 mA	690 mA/55 mA	1035 mA	24 mA p-p	144.10	135.45	126.85	109.55
87-76-2119	12 VDC	±15 VDC	±190 mA	710 mA/57 mA	1065 mA	25 mA p-p	144.10	135.45	126.85	109.55
87-59-1210	24 VDC	5 VDC	1000 mA	320 mA/7 mA	480 mA	11 mA p-p	135.50	127.40	119.25	103.00
87-58-1160	24 VDC	9 VDC	600 mA	350 mA/8 mA	525 mA	12 mA p-p	135.50	127.40	119.25	103.00
87-57-1147	24 VDC	12 VDC	470 mA	360 mA/8 mA	540 mA	13 mA p-p	135.50	127.40	119.25	103.00
87-56-1140	24 VDC	15 VDC	400 mA	385 mA/9 mA	580 mA	13 mA p-p	135.50	127.40	119.25	103.00
87-57-2123	24 VDC	±12 VDC	±230 mA	340 mA/27 mA	510 mA	12 mA p-p	144.10	135.45	126.85	109.55
87-56-2119	24 VDC	±15 VDC	±190 mA	350 mA/28 mA	525 mA	12 mA p-p	144.10	135.45	126.85	109.55
87-49-1210	28 VDC	5 VDC	1000 mA	275 mA/7 mA	410 mA	10 mA p-p	135.50	127.40	119.25	103.00
87-48-1160	28 VDC	9 VDC	600 mA	300 mA/8 mA	450 mA	11 mA p-p	135.50	127.40	119.25	103.00
87-47-1147	28 VDC	12 VDC	470 mA	310 mA/8 mA	465 mA	11 mA p-p	135.50	127.40	119.25	103.00
87-46-1140	28 VDC	15 VDC	400 mA	330 mA/9 mA	495 mA	12 mA p-p	135.50	127.40	119.25	103.00
87-47-2123	28 VDC	±12 VDC	±230 mA	290 mA/23 mA	435 mA	10 mA p-p	144.10	135.45	126.85	109.55
87-46-2119	28 VDC	±15 VDC	±190 mA	300 mA/24 mA	450 mA	11 mA p-p	144.10	135.45	126.85	109.55
87-39-1210	48 VDC	5 VDC	1000 mA	160 mA/7 mA	240 mA	22 mA p-p	144.10	135.45	126.85	109.55
87-38-1160	48 VDC	9 VDC	600 mA	170 mA/8 mA	260 mA	24 mA p-p	144.10	135.45	126.85	109.55
87-37-1147	48 VDC	12 VDC	470 mA	180 mA/8 mA	270 mA	25 mA p-p	144.10	135.45	126.85	109.55
87-36-1140	48 VDC	15 VDC	400 mA	190 mA/9 mA	285 mA	27 mA p-p	144.10	135.45	126.85	109.55
87-37-2123	48 VDC	±12 VDC	±230 mA	170 mA/19 mA	255 mA	24 mA p-p	152.60	143.45	134.30	116.00
87-36-2119	48 VDC	±15 VDC	±190 mA	180 mA/20 mA	270 mA	25 mA p-p	152.60	143.45	134.30	116.00

GS SOLA ELECTRIC

REGULATED POWER SUPPLIES


OEM Series


Series Regulated


Microprocessor Supply

MICROPROCESSOR POWER SUPPLIES

IC regulated power supplies with fully isolated, independent outputs for either positive or negative operation. Designed to operate most of the microprocessors on the market today. Versatile packaging allows vertical or horizontal mounting in a rack or on the bench. Outputs can be connected in series or parallel. Completely protected short circuit proof; automatic current limiting; overvoltage protection available for all outputs—standard on +5 V outputs. **Input Voltage Range:** 104–127/208–254 VAC. **Input Frequency Range:** 50–400 Hz (derate load 75% at 400 Hz). **Output Ripple:** 0.05% peak-to-peak, 0.01% rms. **Regulation Line and Load Combined:** ±0.1%. **Output Noise:** 0.01% rms (10 MHz bandwidth). **Input/Output Isolation:** 1000 megohms DC, 2500 VAC. **Temperature Coefficient:** 0.01%/°C. **Overvoltage Protection:** Standard on all +5 V outputs; optional on others. **Polarity:** May be used either positive or negative. **Operating Temperature:** 0° C to +55° C without derating; −20° C to +80° C with performance derating (consult factory). **Storage Temperature:** −40° C to 85° C. **Recovery Time:** Less than 50 microseconds from half-load to full load. **Minimum Output Adjustment Range:** ±5% at full rated load. **Maximum Output Current:** 120% of rated current. **Maximum Short Circuit Current:** 30% of rated current. **Maximum Allowable Load Drop for Remote Sensing:** 5%.

Sola No.	Output		Net Each, Lots of			
	Volts	Amps	1-4	5-9	10-49	50-99
83-05-230-2	5	3.0	$ 46.35	$ 43.60	$ 40.80	$ 35.25
83-05-260-2	5	6.0	95.25	89.55	83.85	72.40
83-12-218-2	12	1.8	46.35	43.60	40.80	35.25
83-15-216-2	15	1.6	46.35	43.60	40.80	35.25
83-12-250-2	12	5.0	95.25	89.55	83.85	72.40
83-15-240-2	15	4.0	95.25	89.55	83.85	72.40
83-81-2225	+5 +9 to +12	2.5 0.5	69.35	65.20	61.05	52.75
83-82-2230	+5 −5	3.0 0.1	69.35	65.20	61.05	52.75
83-81-2250	+5 +9 to +12	5.0 0.8	123.35	115.95	108.55	93.75
83-82-2250	+5 −5	5.0 0.1	123.35	115.95	108.55	93.75
83-83-3225	+5 +9 to +12 −9 to −12	2.5 .25 .25	108.05	101.60	95.10	82.15
83-84-3225	+5 +9 to +12 −5	2.5 .25 0.1	108.05	101.60	95.10	82.15
83-83-3250	+5 +9 to +12 −9 to −12	5.0 0.5 0.5	137.20	129.00	120.75	104.30
83-84-3250	+5 +9 to +12 −5	5.0 0.5 0.1	137.20	129.00	120.75	104.30

OEM SERIES MODULAR SUPPLIES

Series regulated DC supplies for bench or rack use in powering computers, data processing, process control, electronic measuring, telemetering and others. Completely protected short-circuit proof with automatic current limiting. Convection cooled. Complete serviceability. Remote sensing. **Input:** 108–132 or 216–264 VAC, 50–400 Hertz. **Regulation:** ±.05%, line or load. **Ripple:** 10 mV rms. **Operating Temperature:** 0° C to ±55° C. **Recovery Time:** Less than 50 microseconds. Optional crowbar protection devices are available for this series; ask for pricing and availability. UL listed.

Sola Number	Input Voltage	Output		Net Each, Lots of		
		Voltage Range	Current Amps	1-4	5-9	10-49
15 WATT SERIES						
81-05-230-1	115	5–6	3.0–2.5	$ 40.40	$ 38.00	$ 35.55
81-12-215-1	115	12–15	1.5–1.2	40.40	38.00	35.55
81-24-180-1	115	24	0.8	40.40	38.00	35.55
30 WATT SERIES						
83-05-230-2	230	4.8–5.5	3.0	$ 46.35	$ 43.60	$ 40.80
83-12-218-2	230	11.5–12.5	1.8	46.35	43.60	40.80
83-15-216-2	230	1415–15.5	1.6	46.35	43.60	40.80
83-24-212-2	230	23–25	1.2	46.35	43.60	40.80
60 WATT SERIES						
83-05-260-2	115	4.8–5.5	6.0	$ 95.25	$ 89.55	$ 83.85
83-12-250-2	115	11.5–12.5	5.0	95.25	89.55	83.85
83-15-240-2	115	14.5–15.5	4.0	95.25	89.55	83.85
83-24-225-2	115	23–25	2.5	95.25	89.55	83.85
120 WATT SERIES						
83-05-312-2	115	4.8–5.5	12.0	$144.25	$135.60	$126.95
83-12-310-2	115	11.5–12.5	10.0	144.25	135.60	126.95
83-15-280-2	115	14.5–15.5	8.0	144.25	135.60	126.95
83-24-260-2	115	23–25	6.0	144.25	135.60	126.95
83-48-230-2	115	46–50	3.0	144.25	135.60	126.95

SERIES REGULATED POWER SUPPLIES DUAL AND TRIPLE OUTPUTS

Completely interchangeable power supplies with remote sensing and short circuit protection. **Input:** 120/240 VAC ±10%, 47–420 Hz. **Regulation:** Line and load combined, ±0.1%. **Ripple:** 0.01% rms. **Operating temperature:** 0° C to 55° C. **Recovery time:** Less than 50 microseconds.

Sola No.	Output		Net Each, Lots of			
	Volts	Amps	1-4	5-9	10-49	50-99
83-12-2180	±12	.8	$66.15	$ 62.20	$ 58.25	$ 50.30
83-15-2170	±15	.7	66.15	62.20	58.25	50.30
83-12-2218	±12	1.8	101.35	95.30	89.20	77.05
83-15-2216	±15	1.6	101.35	95.30	89.20	77.05
83-12-2250	±12	5.0	202.60	190.45	178.30	154.00
83-15-2240	±15	4.0	202.60	190.45	178.30	154.00
83-12-3218	±12 5	1.8 6.0	166.05	156.10	146.15	126.20
83-15-3216	±15 5	1.6 6.0	166.05	156.10	146.15	126.20

OVERVOLTAGE PROTECTION

A low-cost option for Sola Class 81 and 83 power supplies.

Power Supply	Overvoltage Protection	Sola Number	Net Each, Lots of		
			1-4	5-9	10-49
15 Watts	5 V/6 V	999-226-5	$23.15	$21.80	$20.40
	12 V/15 V	999-226-12	23.15	21.80	20.40
	24 V	999-226-24	23.15	21.80	20.40
30 Watts	5 V	999-219-5	23.15	21.80	20.40
	12 V	999-219-12	23.15	21.80	20.40
	15 V	999-219-15	23.15	21.80	20.40
	24 V	999-219-24	23.15	21.80	20.40
60 Watts	5 V	999-189-5	23.15	21.80	20.40
	12 V	999-189-12	23.15	21.80	20.40
	15 V	999-189-15	23.15	21.80	20.40
	24 V	999-189-24	23.15	21.80	20.40

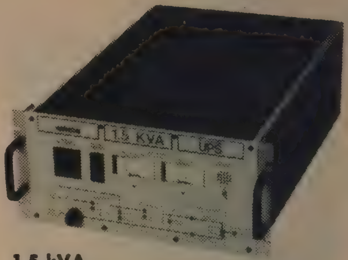
SOLA ELECTRIC

UNINTERRUPTIBLE POWER SYSTEMS

SOLA 1.0, 1.5, AND 2.5 kVA UPS's

Sola UPS systems supply precise, conditioned power independent of disturbances and interruptions on the AC power line. Protects against brownouts, line noise, and transients. Transistorized, full-wave bridge inverter using pulse modulation generates sinusoidal output waveform. Overload capability, 125% for 10 minutes; 200% for 167 milliseconds. If overload capabilities are exceeded, unit automatically transfers to bypass power line—restoration of normal operation is automatic when overload is removed. 1.0 and 1.5 kVA models designed for shelf or rack mounting; 2.5 kVA models designed for floor or shelf mounting.

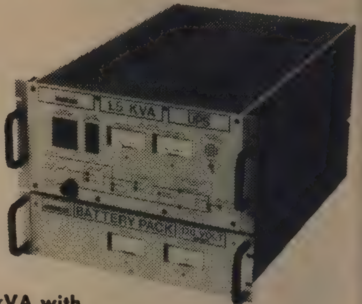
Sola Model Number	Output kVA	Freq. In/Out	In/Out VAC	Max. Input Amps	Output Amps	Size, Ins.	Wt. Lbs.	Net Each
056-10112-1001-00	1.0	60	120	17	8.3	8.75×17×26	160	$3800.00
056-12112-1001-00	1.0	50	220/240	9/8	4.5/4.2	8.75×17×26	175	4180.00
056-10112-1501-00	1.5	60	120	24	12.5	8.75×17×26	185	4500.00
056-12112-1501-00	1.5	50	220/240	14/13	6.8/6.3	8.75×17×26	200	4950.00
056-10211-2501-00	2.5	60	120	38	20.8	28×24×25	435	5500.00
056-11211-2501-00	2.5	50	208	22	12	28×24×25	435	5500.00
056-12211-2501-00	2.5	50	220/240	21	11.3/10.4	28×24×25	465	6050.00



1.5 kVA

BATTERY PACKS

Sola Model Number	Used with UPS Rating	Backup Time 1 Battery Pack	Size, Ins.	Wt. Lbs.	Net Each
911-03-00010-0102	1.0 kVA	14 min.	5.25 × 17 × 26	115	$ 400.00
911-03-00010-0102	1.5 kVA	10 min.	5.25 × 17 × 26	115	400.00
911-03-00012-0202	2.5 kVA	15 min.	18 × 24 × 25	175	550.00
911-03-00028-0202	2.5 kVA	42 min.	18 × 24 × 25	275	1000.00



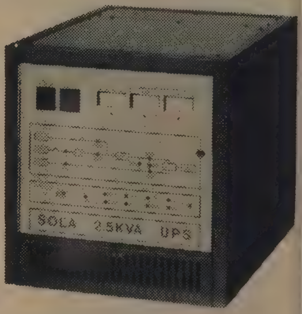
1.5 kVA with battery pack

SOLA MINI UPS

A true UPS is always between the AC line and critical load providing complete protection from brownouts and blackouts as well as line noise and transients. Output waveshape is sinusoidal with less than 3% single harmonic and 5% total harmonic distortion. Regulated output is ±3% when operating from either AC line or battery. Handles load surges and fault clearing providing 125% overload for 1 minute, 150% overload for 10 cycles and 200% into short circuit with 2 automatic restrikes before shutdown. Maintenance-free battery automatically recharges upon return of AC line. Oper. Temp. 0° C to 40° C. Especially designed for small, sensitive electronic equipment such as minicomputers, data terminals, P.O.S. systems. Units measure 12" × 19" × 10.5".

SPECIFICATIONS AND PRICING

Sola No.	Output VA (0.8 pF)	Battery Time	Cooling	Input Volts	Input Hertz	Wt. (Lbs.)	Net Each
26-00-50400-3000	400	10 Min.	Convection	120	60	85	$1380.00
26-00-50400-3001	400	20 Min.	Convection	120	60	100	1406.00
26-00-50750-3000	750	10 Min.	Fan	120	60	120	1497.00
26-29-50300-3000	300	12 Min.	Convection	240	50	100	1518.00
26-29-50300-3001	300	24 Min.	Convection	240	50	115	1548.00
26-29-50600-3000	600	12 Min.	Fan	240	50	135	1647.00



2.5 kVA

WRITE US FOR INFORMATION AND PRICING ON ALL NEW OR UNLISTED ITEMS. NO SPECIAL ORDER NUMBERS NECESSARY, JUST USE THE MANUFACTURER'S MODEL NUMBERS.

STACO
ENERGY PRODUCTS CO.

Variable Transformers

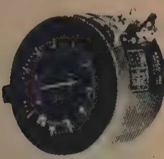


FIG. A

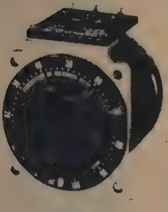


FIG. B

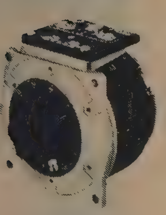


FIG. C

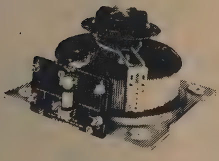


FIG. D

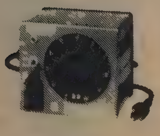


FIG. E

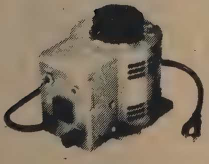


FIG. F

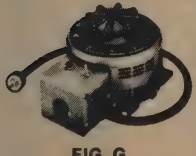


FIG. G

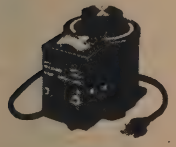


FIG. H

Staco variable transformers offer versatility and reliability unmatched by solid state voltage controls. Staco controls are used worldwide for industrial and laboratory applications to control voltage, current, power, heat, speed, light and electro-mechanical force. Staco variable transformers provide continuously adjustable output voltage from AC power sources without wave form distortions or SCR generated noise. Outstanding features include gold-plated commutators, precise regulation, high efficiency, conservative ratings and rugged construction.

You can select from panel mounted types, cord and plug types, ganged and/or motor driven types, metered types, and fully portable power supplies with or without meters, and ratings from 0.8 amps to 540 amps, 40 volts to 560 volts for single or three phase applications.

Staco has a nationwide network of distributors qualified to offer technical assistance whenever you need it. Additionally, the Staco Engineering Staff is available to help you with special or non-standard applications. Staco's Variable Voltage Controls handbook will be sent to you upon request . . . it's loaded with illustrations, engineering data, specifications and ordering information on standard voltage controls. Prices shown are list prices.

PANEL OR BENCH MOUNTING MODELS *120 VOLT INPUT SINGLE PHASE*

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
171	A	*0-120/132	1.75	0.23	2 13/16 x 1 7/8	3.0	$ 20.00
201	A	*0-120/132	2.0	0.26	2 13/16 x 1 7/8	3.0	20.50
221	A	*0-120/132	2.25	0.30	2 13/16 x 2 1/8	3.2	21.00
251	A	*0-120/132	2.5	0.33	2 13/16 x 2 5/16	3.5	25.00
291	A	*0-120/132	3.0	0.40	2 13/16 x 2 5/16	3.5	27.00
501	B	0-120/140	5.0	0.70	3 3/4 x 3 3/4 x 3 5/16	6.0	37.00
1010	B	0-120/140	10.0	1.4	5 5/16 x 5 x 4 3/16	12.0	48.00
1010CT	J	0-120/140	10.0	1.4	6 7/8 x 5 x 4 7/16	12.0	75.00
SQ1010	B	0-120/140	10.0	1.4	5 3/16 x 4 1/4 x 4 5/32	12.0	50.00
1210	B	**0-120	12.0	1.44	5 5/16 x 5 x 4 3/16	12.0	54.00
1210CT	J	**0-120	12.0	1.44	6 7/8 x 5 x 4 7/16	12.0	74.00
SQ1210	B	**0-120	12.0	1.44	5 3/16 x 4 1/4 x 4 5/32	12.0	60.00
1510	C	0-120/140	15.0	2.1	6 1/8 x 6 5/8 x 4 3/8	20.0	98.00
1510CT	C	0-120/140	15.0	2.1	8 31/32 x 6 3/16 x 4 1/2	20.0	131.00
2510	C	0-120/140	25.0	3.5	8 3/16 x 7 5/8 x 4 1/8	23.0	142.00
2510CT	K	0-120/140	25.0	3.5	9 5/8 x 7 5/8 x 4 1/8	26.0	176.00
5010	D	0-140	50.0	7.0	15 3/8 x 13 7/8 x 5 1/4	60.0	336.00
5010CT	D	0-140	50.0	7.0	17 15/16 x 14 x 7 1/8	66.0	381.00
6010	D	0-120/140	60.0	8.4	15 3/8 x 13 7/8 x 5 1/4	67.0	403.00
6010C	D	0-120/140	60.0	8.4	15 3/8 x 13 7/8 x 7 1/8	67.0	419.00
6010CT	D	0-120/140	60.0	8.4	17 15/16 x 14 x 7 1/8	67.0	457.00

PANEL OR BENCH MOUNTING MODELS *240 VOLT INPUT SINGLE PHASE*

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
252	A	0-240/264	0.8	0.21	2 13/16 x 2 7/16	3.5	$ 33.00
1020	B	0-240/280	3.5	0.98	5 5/16 x 5 x 4 3/16	12.0	64.00
1020CT	J	0-240/280	3.5	0.98	6 7/8 x 5 x 4 7/16	12.0	81.00
SQ1020	B	0-240/280	3.5	0.98	5 3/16 x 4 1/4 x 4 5/32	12.0	64.00
1220	B	**0-240	5.0	1.2	5 5/16 x 5 x 4 3/16	12.0	67.00
1220CT	J	**0-240	5.0	1.2	6 7/8 x 5 x 4 7/16	12.0	84.00
SQ1220	B	**0-240	5.0	1.2	5 3/16 x 4 1/4 x 4 5/32	12.0	67.00
1520	C	0-240/280	9.5	2.66	6 1/8 x 6 5/8 x 4 13/16	20.0	98.00
1520CT	K	0-240/280	9.5	2.66	6 3/8 x 9 1/8 x 5	23.0	124.00
2520	C	0-240/280	10.0	2.8	8 3/16 x 7 5/8 x 4 1/8	23.0	142.00
2520CT	K	0-240/280	10.0	2.8	9 5/8 x 7 5/8 x 4 1/8	26.0	176.00
5020	D	0-240/280	28.0	7.8	15 3/8 x 13 7/8 x 5 1/4	60.0	330.00
5020CT	D	0-240/280	28.0	7.8	17 15/16 x 14 x 7 1/8	66.0	381.00
6020	D	0-240/280	35.0	9.8	15 3/8 x 13 7/8 x 5 1/4	63.0	413.00
6020C	D	0-240/280	35.0	9.8	15 3/8 x 13 7/8 x 7 1/8	63.0	436.00
6020CT	D	0-240/280	35.0	9.8	17 15/16 x 14 x 7 1/8	63.0	476.00

PORTABLE MODELS *120 VOLT INPUT SINGLE PHASE*

Cord, matching receptacle, switch, pilot light, fuse, connected for clockwise knob rotation. Available with 2 conductor line cord and receptacle (2PF) or a 3-conductor grounded line cord and receptacle (3PN).

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
2PF171	E	**0-132	1.75	0.23	3 15/16 x 3 15/16 x 3 1/2	3.5	$ 56.00
3PN171	E	**0-132	1.75	0.23	3 15/16 x 3 15/16 x 3 1/2	3.5	58.00
2PF501	E	0-120/140	5.0	0.70	5 3/8 x 6 1/16 x 5 5/8	9.0	69.00
3PN501	E	0-120/140	5.0	0.70	5 3/8 x 6 1/16 x 5 5/8	9.0	71.00
2PF1010	F	0-120/140	10.0	1.4	5 x 6 7/8 x 5 5/8	12.0	71.00
3PN1010	F	0-120/140	10.0	1.4	5 x 6 7/8 x 5 5/8	12.0	74.00
3PN1210†	F	**0-120	12.0	1.44	5 x 6 7/8 x 5 5/8	12.0	91.00
3PN1510†	G	0-120/140	15.0	2.1	5 7/8 x 6 3/8 x 9	21.0	146.00
3PN2210†	G	0-140	22.0	3.08	5 5/8 x 7 5/8 x 10 3/4	24.0	211.00

PORTABLE MODELS *240 VOLT INPUT SINGLE PHASE*

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
2PF1020	F	0-240/280	3.5	0.98	5 x 6 7/8 x 5 5/8	12.0	$ 86.00
3PN1020	F	0-240/280	3.5	0.98	5 x 6 7/8 x 5 5/8	12.0	93.00
3PN1220†	F	**0-240	5.0	1.2	5 x 6 7/8 x 5 5/8	12.0	103.00
3PN1520†	G	0-240/280	9.5	2.66	5 7/8 x 6 3/8 x 9	21.0	150.00
3PN2520†	G	0-280	10.0	2.8	5 5/8 x 7 5/8 x 10 3/4	24.0	211.00

CT refers to enclosed coil and terminals *60 HZ Only on Overvoltage Connection
**60 HZ operation only C refers to enclosed coil only

†2PF Model available at same price

STACO ENERGY PRODUCTS CO. Variable Transformers

FIG. J

METERED PORTABLE MODELS *120V & 240V SINGLE PHASE*

As above with an accurate, high quality pivot and jewel meter conveniently located atop the enclosure for easy, accurate readout. 120V models have 0-150V meter, 240V models have 0-300V meter.

MFG. TYPE No.	FIG.	INPUT VOLTS	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
2PF1010V	H	120	0-140	10.0	1.4	5 x 6⅞ x 5⅝	12.0	$ 117.00
3PN1010V	H	120	0-140	10.0	1.4	5 x 6⅞ x 5⅝	12.0	119.00
3PN1510V	—	120	0-140	15.0	2.1	5⅞ x 6⅜ x 9	21.0	184.00
2PF1020V	H	240	0-280	3.5	9.8	5 x 6⅞ x 5⅝	12.0	133.00
3PN1020V	H	240	0-280	3.5	9.8	5 x 6⅞ x 5⅝	12.0	135.00
3PN1520V	—	240	0-280	9.5	2.66	5⅞ x 6⅜ x 9	21.0	189.00

Ammeter equipped models available on special order.

FIG. K

VARIABLE ISOLATION TRANSFORMERS *120 VOLT INPUT SINGLE PHASE*

An exclusive by STACO, for use where the safety of isolation is required. The output voltage is completely isolated from the power line (input voltage). On uncased models, when proper external connections are made between windings, it is possible to increase the voltage or current output or input through non-isolated, voltage doubler, or series connection.

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
J201	B	0-140	2.0	0.28	5 5/16 x 5 x 4¾	13.0	$ 102.00
J401	B	0-140	4.0	0.56	6⅛ x 6⅝ x 4 7/16	20.0	156.00
J901	C	0-140	9.0	1.26	8 3/16 x 7⅝ x 4¾	32.0	272.00

FIG. L

ISOLATED PORTABLE MODELS *120 VOLT INPUT SINGLE PHASE*

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	METER	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
3PNJ201	F	0-140	2.0	0.28	NO	5 x 6⅞ x 5⅝	11.0	$120.00
3PNJ201V	H	0-140	2.0	0.28	0-150	5 x 6⅞ x 5⅝	11.0	161.00
3PNJ401	G	0-140	4.0	0.56	NO	5⅞ x 6⅜ x 9	20.0	191.00
3PNJ401V	- —	0-140	4.0	0.56	0-150	5⅞ x 6⅜ x 9	20.0	235.00

Ammeter equipped 3PNJ201A and 3PNJ401A available on special order.

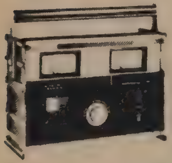


FIG. M

AC POWER SUPPLIES *120 VOLT SINGLE PHASE*

Portable AC Power Supplies are ideal for labs or test bench use. Housed in a ventilated steel and aluminum enclosure with carrying handle, each model is complete with a three-conductor line cord, plug & matching receptacle, pilot light, switch and circuit breaker. Metered models are available with Voltmeter, Ammeter or a Wattmeter (or a combination of meters).

MFG. TYPE NO.	FIG.	INPUT VOLTS	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
L221	L	**120	0-132	1.75	0.23	6 9/32 x 5 x 4¼	5.0	$ 67.00
L501	L	120	0-140	4.5	0.63	7 23/32 x 5⅜ x 5⅞	12.0	86.00
L1010	L	120	0-140	10.0	1.4	9 13/32 x 6½ x 6¼	20.0	102.00
E501V	N	120	0-120/140	5.0	0.7	6⅛ x 17⅝ x 5⅞	20.0	215.00
E501VA	M	120	0-120/140	5.0	0.7	10 x 15 1/16 x 5⅞	25.0	357.00
E501VAW	M	120	0-120/140	5.0	0.7	10 x 15 1/16 x 5⅞	28.0	555.00
E1010V	N	120	0-120/140	10.0	1.4	6 3/16 x 17⅝ x 5⅞	27.0	265.00
E1010VA	M	120	0-120/140	10.0	1.4	10 x 15 1/16 x 5⅞	33.0	422.00
E1010VAW	M	120	0-120/140	10.0	1.4	10 x 15 1/16 x 5⅞	35.0	624.00

E Series Models E171, E501 and E1010, without meters are also available.

FIG. N

ISOLATED AC/DC POWER SUPPLIES *120 VOLT SINGLE PHASE*

As above plus a 0-150V direct rating output voltmeter. 0-140V AC and 0-120V DC isolated outputs at full rated current available from banana jacks located on front panel.

MFG. TYPE NO.	FIG.	OUTPUT VOLTS	OUTPUT AMPS	KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
EJ201V	N	0-140	2.0	0.28	6 3/16 x 17⅝ x 5⅞	20.0	$ 237.00
EJ401V	N	0-140	4.0	0.56	10 x 15 1/32 x 5⅞	30.0	303.00
EJ901V	N	0-140	9.0	1.26	10 x 16 5/32 x 7½	43.0	428.00

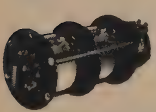


FIG. O

THREE PHASE MODELS *240 VOLTS OR 480 VOLTS INPUT*

Three phase types are three individual units driven by a common shaft and electrically connected in three-phase wye configuration.

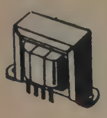
MFG. TYPE NO.	FIG.	INPUT		OUTPUT		KVA	SIZE (INCHES) H x W x D	SH. WT. LBS.	PRICE EACH
		VOLTS	FREQ. HZ	VOLTS	AMPS				
221-3	O	240	60	0-240	2.25	0.94	3⅞ x 3⅞ x 8⅛	9	$ 121.00
1010-3	P	240	50/60*	0-240/280	10.0	4.85	6⅛ x 5 x 14 19/32	36	200.00
1510-3	P	240	50/60*	0-240/280	15.0	7.26	7 1/16 x 6⅛ x 14 9/16	56	361.00
2510-3	P	240	50/60*	0-240/280	25.0	12.10	8⅝ x 7⅝ x 14⅝	72	517.00
5010-3Y	Q	240	60	0-280	50.0	24.2	15 9/16 x 13⅞ x 19⅝	225	1199.00
6010-3Y	Q	240	60	0-240/280	60.0	29 1	15 9/16 x 13⅞ x 19⅝	242	1439.00
252-3	O	480	56/60*	0-480/528	0.8	0.73	3⅞ x 3⅞ x 8⅛	9	150.00
1020-3	P	480	50/60*	0-480/560	3.5	3.40	6⅛ x 5 x 14 19/32	36	237.00
1520-3	P	480	50/60*	0-480/560	9.5	9.20	7 1/16 x 6⅛ x 15 11/16	56	356.00
2520-3	P	480	56/60*	0-480/560	10.0	9.70	8⅝ x 7⅝ x 14⅝	72	536.00
5020-3Y	Q	480	50/60*	0-480/560	28.0	27.2	15 9/16 x 13⅞ x 19⅝	225	1205.00
6020-3Y	Q	480	50/60	0-480/560	35.0	33.9	15 9/16 x 13⅞ x 19⅝	240	1506.00

FIG. P

V = Voltmeter   VA = Voltmeter-Ammeter   VAW = Voltmeter, Ammeter, Wattmeter   **60 HZ operation only

FIG. Q

ESSEX STANCOR Transformers



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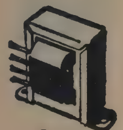

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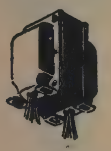

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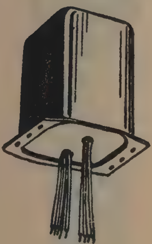

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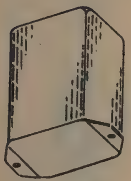

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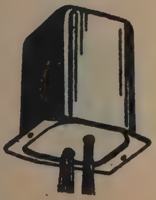


TD

SINGLE PLATE TO VOICE COIL AND/OR LINE

Stancor No.	Impedance in Ohms		Audio Watts	Mtg. Type	Boxed, Net Each, Lots of			
	Primary	Secondary			1-9	10-24	25-49	50-99
A-3332	2000	3.2	3	A	$ 5.62	$ 5.31	$ 4.72	$ 4.47
A-3876	2000	4.0	5	A	4.76	4.50	4.00	3.79
A-3328	4000	3.5	3	A	6.14	5.81	5.17	4.89
A-3877	5000	4.0	5	A	6.44	5.84	5.19	4.92
A-3309	5000	3-4	3	A	6.34	6.00	5.33	5.05
A-8092	5000	3-4	8	A	5.25	4.97	4.42	4.18
A-3878	7000	4.0	5	A	4.86	4.59	4.08	3.87
A-3329	8000	3.5	3	A	5.48	5.19	4.61	4.37
A-3879	10000	4.0	5	A	5.62	5.31	4.72	4.47
A-3250	20000/10000/5000	500/333/200/125/50	5	A	15.03	14.22	12.64	11.97
A-3327	25000	4.0	5	A	6.97	6.59	5.86	5.55

PUSH-PULL PLATES TO VOICE COIL AND/OR LINE

Stancor No.	Impedance in Ohms		Audio Watts	Mtg. Type	Boxed, Net Each, Lots of			
	Primary, CT	Secondary			1-9	10-24	25-49	50-99
A-3800	5000	500/250/15/8/4	30	C	$25.27	$23.91	$21.25	$20.13
A-3801	6600	500/250/15/8/4	35	C	28.36	26.83	23.85	22.59
A-3311	10000	500/15/8/4	25	C	19.52	18.63	16.56	15.68
A-3831	10000	8/4/2	5	A	7.99	7.56	6.72	6.37
A-8093	10000	3-4	10	A	6.05	5.72	5.08	4.82
A-3335	10000	6-8/3.2-4	10	S	8.19	7.75	6.89	6.53
A-3250	20000	500/333/200/125/50	5	A	15.03	14.22	12.64	11.97

25 VOLT LINE TO VOICE COIL AUDIO TRANSFORMERS

Stancor No.	Mtg. Type	Impedance, Ohms		Power Watts	Terminations	Boxed, Net Each, Lots of			
		Primary	Secondary			1-9	10-24	25-49	50-99
A-8096	S	78/156/312/625/1250	4/8/16	8/4/2/1/5	Lugs	$ 7.70	$ 7.28	$ 6.47	$ 6.13
A-8097	S	39/78/156/312/625/1250	4/8/16	16/8/4/2/1/.5	Lugs	15.36	14.53	12.92	12.24
A-8095	A	125/250/500/1000/2000	4/8	5/2.5/1.25/.62/.31	Lugs	10.21	9.66	8.58	8.13
A-8099	A	312/625/1250	4/8	2/1/.5	Lugs	9.08	8.59	7.64	7.24
A-8087	A	312/625/1250	8	2/1/.5	Leads	7.93	7.50	6.67	6.32
A-8055	A	625/1250	8	1/.5 ct	Leads	5.29	5.00	4.44	4.21
A-8071	A	625/1250	8	1/.5	Leads	3.47	3.28	2.92	2.76

70.7 VOLT LINE TO VOICE COIL AUDIO TRANSFORMERS

A-8102	S	625/1250/2500/5000/10000	4/8/16	8/4/2/1/.5	Lugs	$11.36	$10.75	$9.57	$ 9.05
A-8103	S	312/625/1250/2500/ 5000/10000	4/8/16	16/8/4/2/1/.5	Lugs	16.19	15.31	13.61	12.90
A-8105	A	1000/2000/4000/8000/16000	4/8	5/2.5/1.25/.62/.31	Lugs	10.44	9.88	8.78	8.32
A-8105A	A	1000/2000/4000/8000/16000	4/8	5/2.5/1.25/.62/.31	Leads	11.56	10.94	9.72	9.21
A-8109	A	2500/5000/10000	4/8	2/1/.5	Lugs	7.55	7.14	6.35	6.01
A-8080	A	1000/1250/1667/2500/5000	8/16	5/4/3/2/1	Lugs	10.95	10.36	9.21	8.72
A-8082	S	333/357/384/417/455	8/16	15/14/13/12/11	Lugs	14.04	13.28	11.81	11.18
A-8081	S	500/555/625/715/833	8/16	10/9/8/7/6	Lugs	13.21	12.50	11.11	10.53
A-8083	A	2500/5000/10000	8	2/1/.5	Leads	8.78	8.31	7.39	7.00
A-8084	A	1250/2500/5000/10000/ 20000/40000	8	4/2/1/.5/.25/.12	Leads	12.45	11.78	10.47	9.92
A-8076	S	250/500/1000/2000	4/8/16	20/10/5/2.5	Lugs	13.97	13.22	11.75	11.13
A-8077	S	208/416/833/1666/3333	4/8/16	24/12/6/3/1.5	Lugs	16.71	15.81	14.06	13.32
A-8078	S	167/250/500/1000	4/8/16	30/20/10/5	Lugs	11.36	10.75	9.56	9.05
A-8079	S	100/125/200/333	4/8/16	50/40/25/15	Lugs	10.90	10.31	9.17	8.68

LINE TO VOICE COIL AUDIO TRANSFORMERS

Stancor No.	Mtg. Type	Impedance, Ohms		Powers Watts	Terminations	Boxed, Net Each, Lots of			
		Primary	Secondary			1-9	10-24	25-49	50-99
A-8104	S	3000/2000/1500/1000/500	4/8/16	10	Lugs	$13.11	$12.41	$11.03	$10.45
A-3883	S	500	4/6/8/15	25	Lugs	10.69	10.11	8.97	8.51
A-8101	A	500	3.2/6-8	5	Lugs	5.68	5.38	4.78	4.53
A-7947	A	2000/1500/1000/500	3.2/6-8	8	Lugs	8.75	8.28	7.36	6.97
A-7949	S	2000/1500/1000/500	3.2/6-8	12	Lugs	17.18	16.25	14.44	13.68
A-3837	S	500	.06-48	15	Lugs	12.52	11.84	10.53	9.97

AUDIO TRANSFORMERS FOR INTERCOMS AND TRANSCEIVERS

Stancor No.	Mtg. Type	Application	Impedance, Ohms		Terminations	Boxed, Net Each, Lots of			
			Primary	Secondary		1-9	10-24	25-49	50-99
A-4744	VE	Intercom input	4	25K	Leads	$6.24	$5.91	$5.25	$4.97
A-8090	A	Line to voice coil	45/50	6-8/3-4	Lugs	5.75	5.44	4.83	4.58
A-4749	TD	Telephone patch	10K	500	Leads	21.70	20.53	18.25	17.29

INTERSTAGE AUDIO TRANSFORMERS

Stancor No.	Mtg. Type	Turns Ratio	Pri. mA DC	Resistance, Ohms		Termination	Boxed, Net Each, Lots of			
				Pri.	Sec.		1-9	10-24	25-49	50-99
A-53	A	1:3	10	400 1500	1500	Leads	$7.99	$7.56	$6.72	$6.37
A-52C	A	1:2	10	570	1450	Leads	7.73	7.31	6.50	6.16
A-53C	A	1:3	10	400	1500	Leads	8.62	8.16	7.25	6.87
A-63C	A	1:3	10	565	2050	Leads	5.58	5.28	4.69	4.45
A-4723	A	3:1*	30	435	435	Leads	8.89	8.41	7.47	7.08

*Primary to 1/2 secondary winding.

AUDIO TRANSFORMERS FOR MICROPHONE, PICKUP OR LINE

Stancor No.	Mtg. Type	Application	Impedance, Ohms		Terminations	Boxed, Net Each, Lots of			
			Primary	Secondary		1-9	10-24	25-49	50-99
A-4351	SC	Mic. to grid	500/333/ 200/125/50	69K	Leads	$11.59	$10.97	$ 9.75	$ 9.24
A-4779	A	Line to grids	600/500/CT	60K CT	Leads	8.49	8.03	7.14	6.76
A-4350	A	Line to line	50/125/ 200/333/500	50/125/ 200/333/500	Lugs	14.80	14.00	12.44	11.79

ESSEX STANCOR Transformers

UNIVERSAL OUTPUT TRANSFORMERS

Termination: Primary, leads except A-3849, A-3880, A-3870; secondary, lugs.

Stancor No.	Impedance Ohms		Watts	Mtg. Type	Boxed, Net Each, Lots of			
	Primary	Sec.			1-9	10-24	25-49	50-99
A-3856*†	4000-14000	.05-122	4	A	$10.45	$9.50	$8.44	$8.00
A-3823*†	4000-14000	.05-122	8	A	10.67	10.09	8.97	8.50
A-3849*	1500-10000	.02-21	10	A	11.63	11.00	9.78	9.26
A-3880†	4000-14000	.02-122	15	A	14.04	13.28	11.81	11.18
A-3852†	4000-14000	.05-122	18	S	13.51	12.78	11.36	10.76
A-3830†	3000-10000	.04-122	20	S	13.91	13.16	11.69	11.08

*Single plate. †Push-pull plate.

CATHODE-RAY TUBE POWER TRANSFORMER

For use in half-wave circuits. Primary 117 V, 50/60 Hz, except P-8151, 60 Hz. May be operated from a 400 Hz source with no change in output. Lead termination except P-8179, lug.

Stancor No.	Plate Windings		Rec.	Fil.	Other Winding		Mtg.	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of			
	VAC	mADC	V	A	V	A			1-9	10-24	25-49	50-99
P-8150	1550	1.5	2.5	1.75	....	..	SC	3 × 2½ × 3 1/16	$16.81	$15.91	$14.13	$13.40
P-8179	1600	3.0	....	....	6.3/5/2.5 6.3/5/2.5	1.0 3.0	M	2½ × 3 × 3½	23.78	22.50	20.00	18.95
P-8151	2400	5.0	2.5	2.0	2.5	2.0	C	3 7/16 × 3⅞ × 4¼	37.29	35.28	31.36	29.71

PERIPHERAL COMPUTER ACCESSORY TRANSFORMERS

Designed for supplies delivering regulated positive and negative DC voltages for OP-AMPS and separate 5 to 6 volt regulated DC voltages for logic circuits. All transformer ratings are for continuous duty with a 105° C maximum operating temperature limit. Primary, 120 V, 50-60 Hz. Tested to 1500 V rms. All transformers have lug terminations.

Stancor No.	Output		Input Filter MFD
	VDC	mA	
PCA-1	+21 −21	150* 150*	500 500
PCA-2	+21 −21	250* 250*	500 500
PCA-3	+21 −21 +8.5	150* 150* 2000†	500 500 1000
PCA-4	+21 −21 +8.0	250* 250* 4000†	500 500 3000

*Secondary No. 1 with full-wave bridge rectifier.
†Secondary No. 2 with full-wave center-tapped rectifier.

PCA-1, -2 PCA-3, -4

Stancor No.	Style	Secon. #1		Second. #2		Wght. Lbs.	Size, Inches W. × D. × H.	Boxed Net Each, Lots of			
		Volts	Amps	Volts	Amps			1-9	10-24	25-49	50-99
PCA-1	S	35 CT	.21	....	....	1.0	2⅞ × 1⅝ × 2⅜	$8.72	$8.25	$7.33	$6.95
PCA-2	S	35 CT	.35	....	....	1.4	3⅛ × 1⅞ × 2 11/16	9.81	9.28	8.25	7.82
PCA-3	NV	33 CT	.21	18 CT	1.25	3.0	2½ × 2⅝ × 3⅛	19.08	18.05	16.04	15.20
PCA-4	NV	34 CT	.35	19 CT	2.5	3.9	2 13/16 × 2⅞ × 3 7/16	23.09	21.84	19.42	18.40

PRINTED CIRCUIT POLYCHROMATRANS

Printed circuit board transistor transformers. Test volts, 500 rms. Color-coded by application. Up to 50% reduction in distortion over other brands. Improved lower-end frequency response. Leads are fatigue resistant gold-plated nickel-iron alloy, .020″ dia., 9/16″ long and have multiples of 0.1″ grid spacing for PC application. Size .410″ w. × .310″ d. × .480″ h.

Stancor No.	Power Level mW	Use	Matching Impedance, Ohms		Max. mA DC*	Boxed, Net Each, Lots of			
			Primary	Secondary		1-9	10-24	25-49	50-99
PCT-14	15	Input	200K CT	1K CT	0	$14.48	$13.70	$12.18	$11.54
PCT-17	15	Input	200K	1K	0	15.03	14.14	12.64	11.97
PCT-23	55	Interstage	25K CT	1K CT	.5	15.61	14.77	13.13	12.43
PCT-76	75	Output Isolation	10K CT	10K CT	1	15.61	14.77	13.13	12.43
PCT-77	75	Output Isolation	600 CT	600 CT	3	13.54	12.81	11.39	10.79
PCT-116		Choke	6 Henrys		2	10.90	10.31	9.17	8.68
PCT-117		Choke	1.25 Henrys		2	10.52	9.95	8.85	8.38

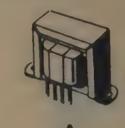
*Unbalanced, in primary.

No. SPCT-10—Magnetic alloy shield for all PCT transformers. Net Each, Quantities of 1-9..................**3.67**
Net Each, Quantities of 10-24...................... **$3.47**; 25-49...................... **$3.08**; 50-99...................... **2.92**

AUTOMATION CONTROL/RECTIFIER TRANSFORMERS

May be operated from a 400 Hz source with no change in output ratings. By connecting primaries in series (for 230 V) but using only 115 input, a series of half voltage output ratings becomes available at the full rated current from each secondary. Solder lug termination.

Stancor No.	Secondary				VA Rating	Mtg. Type	Wt., Lbs.	Boxed, Net Each, Lots of			
	Parallel		Series					1-9	10-24	25-49	50-99
P-6375	6 V at	2 amps	12 V at	1 amp	12	S	1	$9.05	$8.56	$7.61	$7.21
P-6376	6 V at	4 amps	12 V at	2 amps	24	S	1.5	12.52	11.84	10.53	9.97
P-6377	12 V at	4 amps	24 V at	2 amps	48	S	2.5	12.62	11.94	10.61	10.05
P-6378	12 V at	8 amps	24 V at	4 amps	96	NV	4.2	23.49	22.22	19.75	18.71
P-6379	12 V at	16 amps	24 V at	8 amps	192	NV	8	41.45	39.22	34.86	33.03
P-8615	24 V at	0.5 amp	48 V at	0.25 amp	12	S	1.0	12.29	11.63	10.33	9.79
P-8616	24 V at	1 amp	48 V at	0.5 amp	24	S	1.5	12.88	12.19	10.83	10.26
P-8617	24 V at	2 amps	48 V at	1 amp	48	S	2.5	11.92	11.28	10.03	9.50
P-8618	24 V at	4 amps	48 V at	2 amps	96	NV	4.2	22.35	21.14	18.79	17.80
P-8619	24 V at	8 amps	48 V at	4 amps	192	NV	8.0	34.91	30.03	29.36	27.82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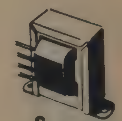
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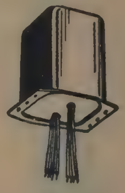
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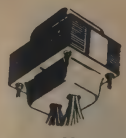
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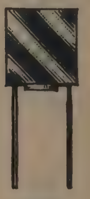
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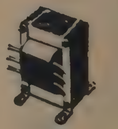
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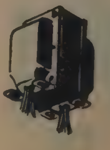
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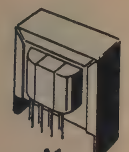
ESSEX STANCOR Transistor Transformers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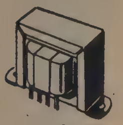
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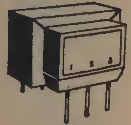
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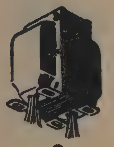
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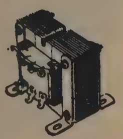
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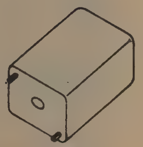
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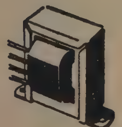
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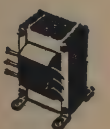
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MINIATURE TRANSISTOR AUDIO TRANSFORMERS

.150 Watt Group—Dimensions: $^{13}/_{16}$" w. × ⅝" d. × $^{21}/_{32}$" h. Mtg. tabs $^{25}/_{32}$" centers, $^{3}/_{16}$" w. Weight, 0.65 oz. Mtg. Type A1.

Stancor No.	Application	Impedance, Ohms		DC Resis., Ohms		Boxed, Net Each, Lots of			
		Primary	Secondary	Primary	Secondary	1-9	10-24	25-49	50-99
TA-18	Input	30 CT	50,000	14.7	4060	$10.01	$9.47	$8.42	$7.97
TA-19	Interstage	100 CT	10 CT	19	1.27	8.29	7.84	6.97	6.61
TA-21	Output	500 CT	4, 8, 16	75.3	3.55	9.98	9.44	8.39	7.95
TA-22	Interstage	500 CT	50	59.7	7.9	7.12	6.73	5.99	5.67
TA-23	Output	600 CT	4, 8, 16	73.2	3.2	9.02	8.53	7.58	7.18
TA-24	Interstage	500 CT	50,000	76.8	5135	8.59	8.13	7.22	6.84
TA-27	Interstage	1,200	20,000 CT	142	1860	8.19	7.75	6.89	6.53
TA-28	Interstage	1,500	500 CT	104	46.5	7.93	7.50	6.67	6.32
TA-29	Output	2,500	4, 16	370	2.3	7.04	6.66	5.92	5.61
TA-30	Interstage	5,000 CT	7,500 CT	650	790	8.59	8.13	7.22	6.84
TA-31	Interstage	5,000 CT	10,000 CT	635	825	8.13	7.69	6.83	6.47
TA-32	Interstage	5,000 CT	80,000 CT	500	5200	8.72	8.25	7.33	6.95
TA-33	Output	10,000 CT	4, 8, 16	1174	2.6	8.95	8.47	7.53	7.13
TA-34	Interstage	10,000	200 CT	1200	25.0	7.86	7.44	6.61	6.26
TA-35	Interstage	10,000	2,000 CT	1200	257	7.89	7.47	6.64	6.29
TA-36	Interstage	10,000	3,000	1200	385	7.99	7.56	6.72	6.37
TA-38	Interstage	500 CT	150 CT	62	21.2	7.12	6.73	5.99	5.67

.300 Watt Group—Dimensions: 1⅝" w. × ¾" d. × $^{13}/_{16}$" h. Mtg. centers, 1⅜". Weight, 1.2 oz. Mtg. Type A.

Stancor No.	Application	Impedance, Ohms		DC Resis., Ohms		Boxed, Net Each, Lots of			
		Primary	Secondary	Primary	Secondary	1-9	10-24	25-49	50-99
TA-39	Output	100 CT	4, 8, 16	10.9	1.45	$10.36	$9.80	$8.71	$8.25
TA-41	Output	400 CT	4, 8, 16	34	1.5	9.91	9.38	8.33	7.90
TA-42	Output	500 CT	4, 8, 16	47	.85	10.80	10.22	9.08	8.61
TA-43	Output	700 CT	4, 8, 16	77	1.15	9.68	9.16	8.14	7.71
TA-45	Output	3,000	4, 8, 16	192	1.2	9.98	9.44	8.39	7.95
TA-46	Interstage	100,000	1,500 CT	3250	143	9.12	8.63	7.67	7.26
TA-47	Input	1,000 CT	200,000 CT	123	1815	9.45	8.94	7.94	7.53
TA-52	Interstage	500 CT	500 CT	40	55	7.47	7.06	6.28	5.95
TA-55	Input	500,000	200 CT	12000	18	9.94	9.41	8.36	7.92
TA-63	Driver	20,000 CT	2,000 CT	2140	325	9.22	8.72	7.75	7.34

MINIATURE TRANSISTOR AUDIO TRANSFORMERS FOR PRINTED CIRCUITS

.150 Watt Group—Dimensions: $^{13}/_{16}$" w. × .65" d. × ¾" h. Mtg. Type B.

Stancor No.	Application	Impedance, Ohms		DC Resis., Ohms		Boxed, Net Each, Lots of			
		Primary	Secondary	Primary	Secondary	1-9	10-24	25-49	50-99
TAPC-28	Interstage	1,500	500 CT	104	46.5	$6.94	$6.56	$5.83	$5.53
TAPC-35	Interstage	10,000	2,000 CT	1200	257	6.85	6.48	5.76	5.48
TAPC-38	Interstage	500 CT	150 CT	62	21.2	7.53	7.13	6.33	6.00

.300 Watt Group—Dimensions: 1$^{1}/_{32}$" w. × 1" d. × ⅞" h. Mtg. Type B.

Stancor No.	Application	Impedance, Ohms		DC Resis., Ohms		Boxed, Net Each, Lots of			
		Primary	Secondary	Primary	Secondary	1-9	10-24	25-49	50-99
TAPC-52	Interstage	500 CT	500 CT	40	55	$9.61	$9.09	$8.08	$7.66
TAPC-63	Driver	20,000 CT	2,000 CT	2140	325	9.17	8.67	7.71	7.30

TRANSISTOR AUDIO TRANSFORMERS

Special transformers for transistor applications. Mtg. Types: TA-56, TA-57 and TA-61, S; TA-13, SC; TA-60, TS; all others, Mtg. Type A.

Stancor No.	Impedance, Ohms		DC Res., Ohms		Max Pri. mADC	Watts	Boxed, Net Each, Lots of			
	Pri.	Sec.	Pri.	Sec.			1-9	10-24	25-49	50-99
TA-1*	600 CT	10	42	.8	20	.05	$9.02	$8.53	7.58	$7.18
TA-2†	100 CT	10 CT	4.3	.8	100	.25	7.10	6.72	5.97	5.66
TA-3†	100	1000 CT	5.8	45	100	.25	8.09	7.66	6.81	6.45
TA-4†	500 CT	5000 CT	37	250	12	.03	9.05	8.56	7.61	7.21
TA-5‡	1000	200 CT	400	115	10	.05	10.11	9.56	8.50	8.05
TA-6‡	2000	200 CT	720	115	5	.05	8.62	8.16	7.25	6.87
TA-7‡	100	100 CT	12	12	100	.5	6.34	6.00	5.33	5.05
TA-9§	1000	4/8/16	180	3.5	10	.2	9.41	8.91	7.92	7.50
TA-10§	2000 CT	4/8/16	250	4	....	.2	11.66	11.03	9.81	9.29
TA-11§	48 CT	8/16	5	1.5	275	5	9.65	9.13	8.11	7.68
TA-12§	20 CT	8	.55	.35	500	10	7.56	7.16	6.36	6.03
TA-16‡	20	36 CT	....	....	400	1.0	6.87	6.50	5.78	5.47
TA-56§	48 CT	3.2/8/16	3.6	1.4	550	10	9.84	9.31	8.28	7.84
TA-57§	100 CT	3.2/8/16	6.6	1.5	500	10	8.75	8.28	7.36	6.97
TA-58§	100	200 CT	6.5	15.5	200	.5	7.00	6.63	5.89	5.58
TA-59§	500 CT	200 CT	36.5	15.5	50	.5	6.85	6.48	5.76	5.46

*Input. †Interstage. ‡Driver. §Output. #Has lugs on secondary.

TRANSISTOR POWER SUPPLY TRANSFORMERS

For transistor power supplies. Primary 117 VAC, 60 Hz. May be operated from a 400 Hz source with no change in output ratings. Lead wire termination. For rectifier circuits, for P-8193, P-8194, showing DC voltages and allowable DC current, write for Stancor Bulletin No. 587.

Stancor No.	Secondary No. 1		Secondary No. 2		Size, Inches W. × D. × H	Mtg. Type	Boxed, Net Each, Lots of			
	V	A‡	V	A‡			1-9	10-24	25-49	50-99
P-8604#	20 CT	1.0	....	....	3¼ × 2⅛ × 2	A	$9.78	$9.25	$8.22	$7.89
P-8614#	30	3.0	....	....	2$^{13}/_{16}$ × 3⅜ × 3½	C	22.46	21.25	18.89	17.90
P-8621†	24/26/28/30	15.0*	....	....	4½ × 5½ × 3$^{13}/_{16}$	NH	57.57	54.47	48.42	45.87
P-8623§	18/20/22	2.0*	....	....	3⅝ × 2¼ × 3⅛	S	13.94	13.18	11.72	11.11
P-8197	50 CT	1.0	....	....	2½ × 2$^{11}/_{16}$ × 3⅛	C	14.34	13.56	12.06	11.42
P-8198	54 CT	.5	6.3	.5	2$^{3}/_{16}$ × 2$^{9}/_{16}$ × 2⅝	C	15.10	14.28	12.69	12.03
P-8193	17/18	6.0	....	....	3⅛ × 3⅛ × 3$^{13}/_{16}$	NV	22.30	21.09	18.75	17.76
P-8194	36	3.0	36	3.0	3¾ × 3¾ × 4$^{9}/_{16}$	NV	36.24	34.28	30.47	28.87
P-8196	80 CT	1.5	....	....	2$^{13}/_{16}$ × 3⅜ × 3½	C	22.99	21.75	19.33	18.32

†Secondary leads have lugs attached. ‡rms. §Solder lug termination. #May be operated from 117 V, 50/60 Hz at full rated load.

ESSEX STANCOR Power Transformers

POWER TRANSFORMERS FOR CAPACITOR INPUT SYSTEMS

Primary 117 V, 60 Hz; may be operated from a 400 Hz source with no change in output. Meets EIA requirements for electrical tolerances, dielectric strength, temperature rise and construction. Operating temperature 105° C max. All secondary AC voltages ±3%.

Stancor No.	Plate Windings		Rectifier Filament		Other Windings		Base Area, Inches	Mtg. Type	Wt. Lbs.	Boxed, Net Each, Lots of			
	AC V	mA DC	V	A	V	A				1-9	10-24	25-49	50-99
PS-8415	125#	15	....	.....	6.3	.6	2⅜ × 1 11/16	S	.7	$9.22	$8.72	$7.75	$7.34
P-8624	125#	15	....	.....	12.6	.3	2⅜ × 1 11/16	S	.7	7.40	7.00	6.22	5.90
PS-8416	125-0-125	25	....	.....	6.3	1.0	2 13/16 × 1¾	S	1.0	8.62	8.16	7.25	6.87
P-8625	125-0-125	25	....	.....	12.6	.6	2 13/16 × 1¾	S	1.0	12.59	11.91	10.58	10.03
PA-8421	125#	50	....	.....	6.3	2.0	3 11/16 × 2⅛	A	1.5	11.59	10.97	9.75	9.24
P-8626	125#	50	....	.....	12.6	1.0	3 11/16 × 2⅛	A	1.5	10.77	10.19	9.07	8.58
P-8181	150#	25	....	.....	6.3 CT	.5	2⅜ × 1 13/16	VE	.8	10.14	9.59	8.53	8.08
P-8627	150#	25	....	.....	12.6 CT	.3	2⅜ × 1 13/16	VE	.8	9.55	9.03	8.03	7.61
P-8359	190-160-0 160-190	70	....	.....	6.3 CT/ 6.3	3.0/.6	2⅝ × 2½	C	2.8	18.40	17.41	15.47	14.66
P-8383	200-0-200	110	....	.....	6.3/6.3 CT	2.0/4.0	3¼ × 2½	C	3.0	18.99	17.97	15.97	15.13
PC-8417	220-0-220	50	....	.....	6.3/25.2	.6/.5	2⅝ × 2½	C	2.2	15.29	14.47	12.86	12.18
PC-8418	230-0-230	50	....	.....	6.3	2.5	2⅝ × 2½	C	2.2	17.08	16.16	14.36	13.61
PM-8418	230-0-230	50	....	.....	6.3	2.5	3 × 2½	M	2.2	14.70	13.91	12.36	11.71
PC-8401	235-0-235	40	5.0	2.0	6.3 CT	2.0	2⅝ × 2½	C	2.2	18.70	17.69	15.72	14.90
PM-8401	235-0-235	40	5.0	2.0	6.3 CT	2.0	3 × 2½	M		17.41	16.47	14.64	13.87
PC-8402	240-0-240	55	5.0	2.0	6.3 CT	2.0	2¾ × 2½	C	2.4	19.82	18.75	16.67	15.79
PC-8419	240-0-240	70	....	.....	6.3	3.0	2⅞ × 2½	C	2.6	15.66	14.81	13.17	12.47
PM-8419	240-0-240	70	....	.....	6.3	3.0	3 × 2½	M		15.89	15.03	13.36	12.66
P-8174	250-0-250	20	....	.....	6.3/6.3	.6/1.2	2¼ × 3 5/16	C		14.60	13.81	12.28	11.63
PC-8403	250-0-250	70	5.0	2.0	6.3 CT	2.5	3½ × 2½	C	3.2	19.49	18.44	16.39	15.53
PC-8404	260-0-260	90	5.0	2.0	6.3 CT	3.0	3½ × 2 13/16	C	4.0	21.67	20.50	18.22	17.26
PC-8420	260-0-260	90	....	.....	6.3	4.0	3¼ × 2 13/16	C	3.5	17.74	16.78	14.92	14.13
PM-8420	260-0-260	90	....	.....	6.3	4.0	3⅜ × 2 13/16	M		17.44	16.50	14.67	13.90
PSC-55	270-0-270	55	5.0	2.0	6.3 CT	2.0	2⅞ × 3½	SC		30.39	28.75	25.56	24.21
PC-8405	270-0-270	120	5.0	3.0	6.3 CT	3.5	3½ × 3⅛	C	4.9	24.24	22.94	20.39	19.32
P-8356	270-0-270	260	5.0	3.0	6.3	8.8	3⅜ × 3⅛	C*	6.5	29.17	27.59	24.53	23.24
P-8377	270-0-270	280	5.0	3.0	6.3	10.0	3 15/16 × 3⅛	M*	6.7	31.05	29.38	26.11	24.74
P-8378	280-0-280 250-0-250	300	5.0/3.0	4.5	6.3/24.0	10.0/1.2	4⅝ × 3⅛	C*	7.9	39.08	36.97	32.86	31.13
P-8355	285-0-285	250	5.0	3.0	6.3	9.5	3½ × 3¾	C4*	6.5	36.60	34.63	30.78	29.16
P-8358	300-0-300	65	....	.....	6.3 CT	2.7	2½ × 2½	C	3.0	15.79	14.94	13.28	12.58
P-8175	300-0-300	70	5.0	3.0	6.3 CT	3.0	3½ × 2⅞	C	4.0	25.86	24.46	21.75	20.61
PC-8406	325-0-325	40	5.0	2.0	6.3 CT	2.0	2¾ × 2½	C	2.4	17.21	16.28	14.47	13.71
PM-8406	325-0-325	40	5.0	2.0	6.3 CT	2.0	3 × 2½	M		17.61	16.66	14.81	14.03
PC-8407	325-0-325	55	5.0	2.0	6.3 CT	2.0	3⅛ × 2½	C	3.2	23.19	21.94	19.50	18.47
PC-8422	325-0-325	150	5.0	3.0	6.3 CT	5.0	3⅞ × 3⅛	C	5.8	27.42	25.94	23.06	21.84
P-8339	325-0-325	255	5.0	3.0	12.6 CT	5.25	4⅜ × 3¾	C	8.5	38.38	36.31	32.28	30.58
PC-8408	340-0-340	70	5.0	2.0	6.3 CT	2.5	3⅜ × 2 13/16	C	3.8	21.24	20.09	17.86	16.92
PC-8409	350-0-350	90	5.0	2.0	6.3 CT	3.0	3⅝ × 2 13/16	C	4.5	23.45	22.19	19.72	18.68
PC-8410	360-0-360	120	5.0	3.0	6.3 CT	3.5	3¾ × 3⅛	C	5.5	29.69	28.09	24.97	23.66
PC-8411	375-0-375	150	5.0	3.0	6.3 CT	4.5	4 × 3 7/16	C	5.8	30.82	29.16	25.92	24.55
PC-8412	400-0-400	200	5.0	3.0	6.3 CT	5.0	4 × 3¾	C	8.2	36.07	34.13	30.33	28.74
PC-8413	400-0-400	250	5.0	4.0	6.3 CT	5.0	4½ × 3¾	C	10.0	39.80	37.66	33.47	31.71
PC-8414	600-0-600	200	5.0	3.0	6.3/6.3	3.0/3.0	4¼ × 3¾	C	8.3	39.41	37.28	33.14	31.40
PM-8409	350-0-350	90	5.0	2.0	6.3 CT	3.0	3⅜ × 2 13/16	M		22.71	21.48	19.08	18.09

*With copper shorting band to reduce external magnetic field.
#For half-wave circuits.

ISOLATION TRANSFORMERS

Electrostatic shields grounded to core. Primary 50/60 Hz, line cord. May be operated from a 400 Hz source with no change in output.

STRAIGHT ISOLATION

Secondary female receptacle, except P-6411, P-6411A, P-6412, P-6413 and P-8622 have lead wires.

Stancor No.	Cap. VA	Voltage		Mtg. Type	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of			
		Input	Output			1-9	10-24	25-49	50-99
P-6413	0.6	115	115	A	2⅛ × 1¼ × 1½	$ 7.43	$ 7.03	$ 6.25	$ 5.92
P-6411	15	115	115	A	3¼ × 1⅞ × 2	7.76	7.34	6.53	6.18
P-6411A	15	115	115	HE	3¼ × 1⅞ × 2	8.72	8.25	7.33	6.95
P-6412	35	115	115	A	3¾ × 2 × 2⅜	9.12	8.63	7.67	7.26
P-6410	50	115	115	C	2 13/16 × 3⅛ × 3½	25.04	23.69	21.06	19.95
P-6160*	100	105/115/125	115	C	3¾ × 3¾ × 4 11/16	49.91	47.22	41.97	39.76
P-8622	150	115‡	115/230#	C	3⅛ × 4 × 3⅞	21.53	20.38	18.11	17.16
P-6161*	250	105/115/125	115	C	3¾ × 5½ × 4 11/16	77.56	73.38	65.22	61.79
P-6298*	500	105/115/125	115	C	5⅝ × 7¼ × 7⅝	170.53	161.34	143.42	135.87

STEP-DOWN ISOLATION

Secondary female receptacle. P-6406 has lead wires.

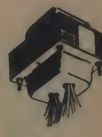
P-6406	50	115/230‡§	115	A	3¾ × 2 5/16 × 2⅜	$ 10.77	$ 10.19	$ 9.06	$ 8.58
P-6383*	100	210/230/250	115	C	3¾ × 3¾ × 4 11/16	47.20	44.66	39.69	37.61
P-6385*	250	210/230/250	115	C	3¾ × 5½ × 4 11/16	60.38	57.13	50.78	48.11
P-6387*	500	210/230/250	115	FS	5⅝ × 7⅛ × 7¾	172.59	163.28	145.14	137.50
P-6389	1000	210/230/250	115	FS	5⅝ × 7¾ × 7⅝	175.59	166.13	147.67	139.90
P-6390	1500	210/230/250	115	FS	5⅝ × 9¼ × 7⅝	226.49	214.28	190.47	180.45

*Has primary switch. ‡Has electrostatic shield. #Secondary is two separate 115 windings.

ISOLATION TESTING

Secondary three female receptacles.

P-6415	350	117	105/115/125	C	4⅝ × 5 13/16 × 5½	66.79	63.19	56.17	53.21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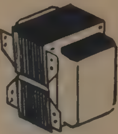
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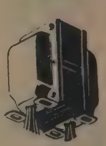
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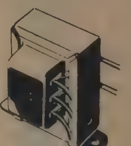
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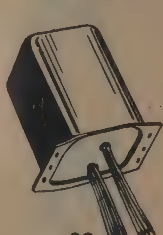
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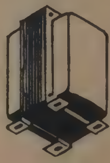
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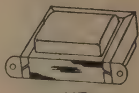
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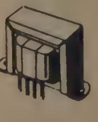
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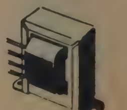
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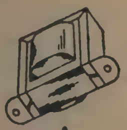
ESSEX STANCOR Transformers

RECTIFIER, CONTROL AND FILAMENT TRANSFORMERS

WITH SINGLE SECONDARY

All primaries 50/60 Hz. May be operated from a 400 Hz source with no change in output rating. All secondary voltages ±3%. Insulation test voltage is twice allowable rms working voltage plus 1000 volts.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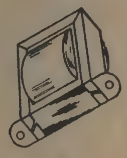
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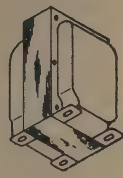
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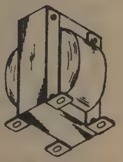
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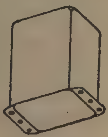
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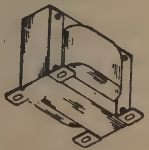
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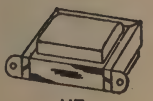
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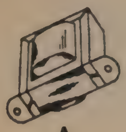
Stancor No.	Secondary		Insul. Test Vrms	Pri. V	Termination		Mtg.	Size, Inches H. × W. × D.	Boxed, Net Each, Lots of			
	V	A			Pri.	Sec.			1-9	10-24	25-49	50-99
P-8628	2.5 CT	0.3	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1 5/16	$6.14	$5.81	$5.17	$4.90
P-8629	2.5	1.0	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	6.44	6.09	5.42	5.13
P-4026	2.5	1.5	2500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	6.54	6.19	5.50	5.21
P-6133*	2.5 C.T.	5.0	7500	117	Leads	Leads	S	2¾ × 3⅛ × 2¼	14.34	13.56	12.06	11.42
P-3024*	2.5 C.T.	10.0	2500	117/107	Leads	Leads	C	3⅛ × 2½ × 2¾	18.70	17.69	15.72	14.90
P-6454	2.5 C.T.	10.0	7500	117/107	Leads	Leads	S	3⅛ × 3⅝ × 2½	15.06	14.24	12.67	12.00
P-3060	2.5 C.T.	10.0	10000	117	Lugs	Lugs	NV	3 7/16 × 2 13/16 × 2⅜	18.56	17.56	15.61	14.79
P-6467	5.0 C.T.	3.0	2500	117	Leads	Leads	A	2 × 3¼ × 2⅛	9.78	9.25	8.22	7.79
P-6455	5.0 C.T.	6.0	2000	117/107	Leads	Leads	S	2¾ × 3⅛ × 2⅛	9.94	9.41	8.36	7.92
P-3062*	5.0 C.T.	6.0	2500	117	Lugs	Lugs	NV	3⅛ × 2½ × 2¼	15.43	14.59	12.97	12.29
P-6135	5.0 C.T.	10.0	2500	117	Leads	Leads	NV	3⅛ × 2½ × 2¾	19.85	18.78	16.69	15.82
P-6433*	5.0 C.T.	15.0	2500	117	Leads	Leads	NV	3⅛ × 2½ × 2¾	20.05	18.97	16.86	15.97
F-516	5.0 C.T.	20.0	2500	115/230	Terms	Terms	SC	4 11/16 × 4 7/16 × 3 11/16	52.09	49.28	43.81	41.50
P-6492	5.0 C.T.	30.0	2500	117	Leads	Leads	C	4 11/16 × 3¾ × 4	33.33	31.53	28.03	26.55
P-6468*	5.0 C.T.	30.0	2500	117/107	Lugs	Lugs	C	4¼ × 3 7/16 × 3⅞	36.76	34.78	30.92	29.29
P-8385	6.3 C.T.	0.3	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1¾	5.78	5.47	4.86	4.61
P-6465	6.3 C.T.	0.6	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1½	5.35	5.06	4.50	4.26
P-8705	6.3 C.T.	0.6	1500	230	Leads	Leads	A	1⅜ × 2⅜ × 1½	7.07	6.69	5.94	5.63
P-8389	6.3	1.0	1500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	6.36	6.02	5.35	5.07
P-6134	6.3 C.T.	1.2	3000	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅞	6.36	6.02	5.35	5.07
P-8190	6.3	1.2	5000	117	Leads	Leads	A	2 × 3¼ × 1⅞	8.06	7.63	6.78	6.42
P-8191	6.3	1.2	5000	6.3	Leads	Leads	A	2 × 3¼ × 2	11.56	10.94	9.72	9.21
P-5014*	6.3 C.T.	3.0	2500	117	Lugs	Lugs	NV	3⅛ × 2½ × 2½	10.57	10.00	8.89	8.42
P-6466	6.3 C.T.	3.0	2500	117	Leads	Leads	A	2 × 3¼ × 2⅛	8.92	8.44	7.50	7.11
P-6462	6.3	3.0	7000	117/107	Leads	Leads	S	3⅛ × 3⅝ × 2⅜	14.43	13.66	12.14	11.50
P-4019*	6.3 C.T.	4.0	2500	117/107	Leads	Leads	C	3⅛ × 2½ × 2¾	16.42	15.53	13.81	13.08
P-8648	6.3. C.T.	4.0	1500	117	Leads	Leads	A	2⅜ × 3¾ × 2⅛	10.93	10.34	9.19	8.71
P-8649	6.3 C.T.	5.0	1500	117	Leads	Leads	A	2⅜ × 3¾ × 2⅛	11.89	11.25	10.00	9.47
P-3064*	6.3 C.T.	6.0	2500	117	Lugs	Lugs	NV	3⅛ × 2½ × 2⅜	17.51	16.56	14.72	13.95
P-4089	6.3 C.T.	6.0	2500	117/107	Leads	Leads	C	3½ × 2 18/16 × 3¼	19.36	18.31	16.28	15.42
P-6456	6.3 C.T.	6.0	2000	117/107	Leads	Leads	A	2⅜ × 3¾ × 2⅜	13.64	12.91	11.47	10.87
P-8651	6.3 C.T.	8.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2¼	14.95	14.14	12.57	11.91
P-6464	6.3 C.T.	10.0	2000	117	Leads	Leads	C	3½ × 2 13/16 × 3¼	21.07	19.94	17.72	16.79
P-6308*	6.3 C.T.	10.0	2500	117/107	Leads	Leads	NV	3 7/16 × 2 13/16 × 2⅝	17.94	16.97	15.08	14.29
P-8189	6.3 C.T.	20.0	2500	117	Leads	Leads	C	3⅞ × 3⅛ × 4¼	27.05	25.59	22.75	21.55
P-6309	6.3 C.T.	20.0	2500	117/107	Leads	Leads	NV	4 9/16 × 3¾ × 3⅜	31.71	30.00	26.67	25.26
P-5015*	7.5 C.T.	4.0	2500	117	Lugs	Lugs	NV	3⅛ × 2½ × 2¼	15.62	14.78	13.14	12.45
P-6138*	7.5 C.T.	8.0	2500	117	Leads	Leads	NV	3 13/16 × 3⅛ × 2¾	24.21	22.91	20.36	19.29
P-6457	7.5 C.T.	21.0	2000	117/107	Leads	Leads	C	4⅝ × 3¾ × 4	33.69	31.88	28.33	26.84
P-8652	10.0 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 1⅝	7.96	7.53	6.69	6.34
P-8653	10.0 C.T.	2.0	1500	117	Leads	Leads	A	2 × 3¼ × 2	9.32	8.81	7.83	7.42
P-8380	10.0 C.T.	3.0	1500	117	Leads	Leads	A	2⅜ × 3¾ × 2¼	11.08	10.48	9.32	8.83
P-8654	10.0 C.T.	4.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2⅛	13.94	13.19	11.72	11.11
P-5016*	10.0 C.T.	4.0	2500	117	Lugs	Lugs	NV	3 7/16 × 2 13/16 × 2½	16.28	15.41	13.69	12.97
P-6458	10.0 C.T.	5.0	2000	117/107	Leads	Leads	NV	3 1/16 × 2½ × 2½	17.28	16.34	14.53	13.76
P-8655	10.0 C.T.	6.0	1500	117	Leads	Leads	NV	3⅛ × 2½ × 2¾	16.80	15.89	14.13	13.38
P-8656	10.0 C.T.	8.0	1500	117	Leads	Leads	NV	3 7/16 × 2 13/16 × 3	17.87	16.91	15.03	14.24
P-6139*	10.0 C.T.	8.0	2500	117	Leads	Leads	NV	3 13/16 × 3⅛ × 3	25.86	24.47	21.75	20.61
P-4097*	10.00 C.T	8.0	2500	117/107	Leads	Leads	C	3⅞ × 3⅛ × 3¾	29.30	27.72	24.64	23.34
P-6461	10.0 C.T.	10.0	2000	117	Leads	Leads	C	3⅞ × 3¼ × 3 9/16	28.64	27.09	24.08	22.82
P-3020*	11.0 C.T.	10.0	2500	117/107	Leads	Leads	C	4 11/16 × 3¾ × 3⅝	27.55	26.06	23.17	21.95
P-8390	12.0	0.15	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1¼	5.95	5.63	5.00	4.74
P-8391	12.0	0.35	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	6.54	6.19	5.50	5.21
P-8392	12.0	0.70	1500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	6.90	6.53	5.81	5.50
P-8393	12.0	1.2	1500	117	Leads	Leads	A	2 × 3¼ × 1⅝	8.26	7.81	6.94	6.58
P-8657	12.0	2.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	7.43	7.03	6.25	5.92
P-8658	12.0	4.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2¼	12.96	12.27	10.90	10.33
P-8659	12.0	6.0	1500	117	Leads	Leads	NV	3 7/16 × 2 13/16 × 2⅝	18.60	17.59	15.64	14.82
P-8660	12.0	8.0	1500	117	Leads	Leads	NV	3 13/16 × 3⅛ × 2¾	18.04	17.06	15.17	14.37
P-8384	12.6 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 1¾	8.06	7.63	6.78	6.42
P-8130	12.6 C.T.	2.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	8.09	7.66	6.81	6.45
P-8715	12.6 C.T.	2.0	1500	230	Leads	Leads	A	2 × 3¼ × 2⅛	9.78	9.25	8.22	7.79
P-8358	12.6 C.T.	3.0	1500	117	Leads	Leads	A	2⅜ × 3¾ × 2¼	10.83	10.25	9.11	8.63
P-8641	12.6 C.T.	4.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2⅜	13.48	12.75	11.33	10.74
P-8716	12.6 C.T.	4.0	2500	230	Leads	Leads	A	2⅝ × 4 × 2⅜	12.78	12.09	10.75	10.18
P-8642	12.6 C.T.	6.0	1500	117	Leads	Leads	C	3½ × 2 13/16 × 3⅜	18.50	17.50	15.56	14.74
P-8643	12.6 C.T.	8.0	1500	117	Leads	Leads	C	3⅞ × 3⅛ × 3⅝	27.94	26.44	23.50	22.26
P-8644	12.6 C.T.	10.0	1500	117	Leads	Leads	C	4¼ × 3 7/16 × 3⅞	34.45	32.59	28.97	27.45
P-8604	20.0 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	9.78	9.25	8.22	7.89
P-8394	24.0 C.T.	0.085	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1¼	7.02	6.64	5.90	5.59
P-8720	24.0 C.T.	0.085	1500	230	Leads	Leads	A	1¼ × 2⅛ × 1¼	7.43	7.03	6.25	5.92
P-8395	24.0 C.T.	0.20	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	6.94	6.56	5.83	5.53
P-8721	24.0 C.T.	0.20	1500	230	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	7.17	6.78	6.03	5.71
P-8396	24.0 C.T.	0.40	1500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	7.83	7.41	6.58	6.24
P-8722	24.0 C.T.	0.40	1500	230	Leads	Leads	A	1⅝ × 2⅞ × 1½	9.12	8.63	7.67	7.26
P-8397	24.0 C.T.	0.70	1500	117	Leads	Leads	A	2 × 3¼ × 1¾	7.86	7.44	6.61	6.26
P-8723	24.0 C.T.	0.70	1500	230	Leads	Leads	A	2 × 3¼ × 1⅝	8.85	8.38	7.44	7.05
P-8661	24.0 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2 1/16	8.14	7.70	6.85	6.49
P-8662	24.0 C.T.	2.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2⅜	12.39	11.72	10.42	9.87
P-8663	24.0 C.T.	4.0	1500	117	Leads	Leads	NV	3 13/16 × 3⅛ × 2 13/16	18.30	17.31	15.40	14.58
P-8664	24.0 C.T.	6.0	1500	117	Leads	Leads	NV	4 3/16 3 7/16 × 3	27.25	25.78	22.91	21.71
P-8665	24.0 C.T.	8.0	1500	117	Leads	Leads	NV	4 3/16 × 3 7/16 × 3⅜	31.54	29.84	26.53	25.13
P-8666	24.0 C.T.	12.0	1500	117	Leads	Leads	NV	4 9/16 × 3¾ × 4⅝	41.95	39.69	35.28	33.42

*Has electrostatic shield.

LISTING CONTINUED ON NEXT PAGE

ASK YOUR STANCOR DISTRIBUTOR FOR TRANSFORMER CATALOG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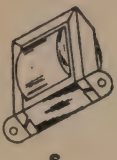
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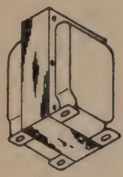
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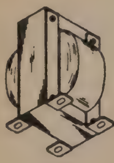
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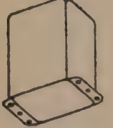
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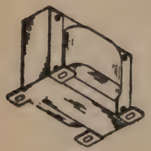
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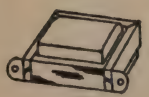
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RECTIFIER, CONTROL AND FILAMENT TRANSFORMERS (Continued)

WITH SINGLE SECONDARY

Stancor No.	Secondary		Insul. Test V rms	Pri. V	Termination		Mtg.	Size, Inches H. × W. × D.	Boxed, Net Each, Lots of			
	V	A			Pri.	Sec.			1-9	10-24	25-49	50-99
P-6469	25.2	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	$8.26	$7.81	$6.94	$6.58
P-8707	25.2	1.0	1500	230	Leads	Leads	A	2 × 3¼ × 2⅛	9.65	9.13	8.11	7.68
P-8180	25.2 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2¼	8.26	7.81	6.94	6.58
P-8357	25.2 C.T.	2.0	1500	117	Leads	Leads	A	2⅝ × 4 × 2¼	10.22	9.67	8.60	8.15
P-8388	25.2 C.T.	2.8	1500	117	Leads	Leads	A	2⅝ × 4 × 2¼	13.96	13.20	11.74	11.12
P-8645	25.2 C.T.	5.0	1500	117	Leads	Leads	C	4¼ × 3 7/16 × 3⅞	30.26	28.63	25.44	24.11
P-8646	25.2 C.T.	7.5	1500	117	Leads	Leads	C	4¼ × 3½ × 4¼	36.93	34.94	31.06	29.42
P-8647	25.2 C.T.	10.0	1500	117	Leads	Leads	C	4 11/16 × 3¾ × 5	52.52	49.69	44.17	41.84
P-8606	26.0 C.T.†	0.04	2500	117▲	Leads	Leads	A	1¼ × 2⅛ × 1⅜	8.69	8.22	7.31	6.92
P-8607	26.0 C.T.†	0.25	2500	117▲	Leads	Leads	A	1⅝ × 2⅞ × 1¾	8.98	8.50	7.56	7.16
P-8608	26.5 C.T.	0.6	2500	117	Leads	Leads	A	2 × 3¼ × 2⅛	9.21	8.72	7.75	7.34
P-8609	26.8 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	7.76	7.34	6.53	6.18
P-8600	28.0 C.T.	0.085	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1¼	6.84	6.47	5.75	5.45
P-8601	28.0 C.T.	0.175	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	7.07	6.69	5.94	5.63
P-8602	28.0 C.T.	0.3	1500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	8.06	7.63	6.78	6.42
P-8603	28.0 C.T.	0.8	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	9.03	8.55	7.60	7.18
P-8667	28.0 C.T.	1.0	1500	117	Leads	Leads	A	2 × 3¼ × 2⅛	8.92	8.44	7.50	7.11
P-8668	28.0 C.T.	2.0	1500	117	Leads	Leads	NV	3⅛ × 2½ × 2½	15.52	14.65	13.06	12.37
P-8669	28.0 C.T.	4.0	1500	117	Leads	Leads	NV	3 13/16 × 3⅛ × 3¼	21.24	20.09	17.86	16.92
P-8670	28.0 C.T.	6.0	1500	117	Leads	Leads	NV	4 3/16 × 3 7/16 × 3½	25.27	23.91	21.25	20.13
P-8610	36.0 C.T.	0.065	1500	117	Leads	Leads	A	1¼ × 2⅛ × 1¼	6.77	6.41	5.69	5.40
P-8728	36.0 C.T.	0.065	1500	230	Leads	Leads	A	1¼ × 2⅛ × 1¼	7.50	7.09	6.31	5.97
P-8611	36.0 C.T.	0.135	1500	117	Leads	Leads	A	1⅜ × 2⅜ × 1⅜	7.00	6.63	5.89	5.58
P-8612	36.0 C.T.	0.3	1500	117	Leads	Leads	A	1⅝ × 2⅞ × 1⅝	8.46	8.00	7.11	6.74
P-8613	36.0 C.T.	0.55	1500	117	Leads	Leads	A	2 × 3¼ × 1⅞	8.82	8.34	7.42	7.03
P-8671	36.0 C.T.	1.0	1500	117	Leads	Leads	A	2⅜ × 3¾ × 2¼	11.36	10.75	9.56	9.05
P-8672	36.0 C.T.	2.0	1500	117	Leads	Leads	NV	3 7/16 × 2 13/16 × 2¾	18.30	17.31	15.39	14.58
P-8673	36.0 C.T.	4.0	1500	117	Leads	Leads	NV	4 3/16 × 3 1/16 × 2⅞	27.68	26.19	23.28	22.05
P-8674	36.0 C.T.	6.0	1500	117	Leads	Leads	NV	4 9/16 × 3¾ × 3½	34.78	32.91	29.25	27.71
P-8605	48.0 C.T.†	1.0	2500	117‡	Leads	Leads	A	2⅝ × 4 × 2⅜	19.98	18.91	16.81	15.92

†Nominal. ▲Primary tapped to provide secondary voltages of 24.5 C.T., 27.5 C.T. or 29.0 C.T. ‡Primary tapped to provide secondary voltages of 45 C.T., 51 C.T. or 54 C.T.

WITH DUAL C.T. SECONDARIES

All primaries 50/60 Hz, except as indicated (●). May be operated from 400 Hz source with no change in output rating. All secondary voltages ±3%. Secondary windings may be connected in series or parallel if properly phased. Insulation test voltage is twice allowable R.M.S. voltage plus 1000 volts.

Stancor No.	Secondaries■		Insul. Test V rms	Pri. V	Termination		Mtg.	Size, Inches H. × W. × D.	Boxed, Net Each, Lots of			
	V	A			Pri.	Sec.			1-9	10-24	25-49	50-99
P-8680	12.0 C.T. 12.0 C.T.	0.1 0.1	1500 1500	115	Lugs	Lugs	S	2 × 2⅜ × 1⅝	$11.76	$11.13	$9.89	$9.37
P-8681	12.0 C.T. 12.0 C.T.	0.25 0.25	1500 1500	115	Lugs	Lugs	S	2⅜ × 2⅞ × 1¾	10.44	9.86	8.78	8.32
P-8682	12.0 C.T. 12.0 C.T.	0.5 0.5	1500 1500	115	Lugs	Lugs	S	2⅜ × 2⅞ × 1⅞	15.16	14.34	12.75	12.08
P-8683	12.0 C.T. 12.0 C.T.	1.0 1.0	1500 1500	115	Lugs	Lugs	S	2¾ × 3⅛ × 2⅛	11.83	11.19	9.94	9.42
P-8676	12.0 C.T. 12.0 C.T.	1.0 1.0	1500 1500	115	Lugs	Lugs	NH	2½ × 3 × 2 9/16	14.50	13.72	12.19	11.55
P-8677	12.0 C.T. 12.0 C.T.	2.0 2.0	1500 1500	115	Lugs	Lugs	NH	2½ × 3 × 3	15.89	15.03	13.36	12.66
P-8678	12.0 C.T. 12.0 C.T.	4.0 4.0	1500 1500	115	Lugs	Lugs	NH	3⅛ × 3¾ × 2 15/16	24.48	23.16	20.58	19.50
P-8679	12.0 C.T. 12.0 C.T.	6.0 6.0	1500 1500	115	Lugs	Lugs	NH	3½ × 4⅛ × 3 1/16	29.53	27.94	24.83	23.53
P-8684	18.0 C.T. 18.0 C.T.	1.0 1.0	1500 1500	115#	Lugs	Lugs	NH	2½ × 3 × 2½	17.77	16.81	14.94	14.16
P-8685	18.0 C.T. 18.0 C.T.	2.0 2.0	1500 1500	115#	Lugs	Lugs	NH	3¼ × 3 13/16 × 3⅛	21.14	20.00	17.78	16.84
P-8686	18.0 C.T. 18.0 C.T.	4.0 4.0	1500 1500	115#	Lugs	Lugs	NH	3 9/16 × 4⅛ × 3⅛	33.86	32.03	28.47	26.97
P-8687	18.0 C.T. 18.0 C.T.	8.0 8.0	1500 1500	115#	Lugs	Lugs	NH	3⅞ × 4½ × 4⅛	42.44	40.16	35.69	33.82
P-8688	18.0 C.T. 18.0 C.T.	12.0 12.0	1500 1500	115#●	Lugs	Lugs	NH	4 7/16 × 5¼ × 4¼	53.25	50.38	44.78	42.42
P-8675	34.0 C.T. 34.0 C.T.	4.0 4.0	1500 1500	115	Lugs	Lugs	NH	3¾ × 4½ × 4¼	39.67	37.53	33.38	31.61

#60 Hz operation only. ■R.M.S. values. ● Tapped at 100/105/110/115 volts.

MULTIPLE SECONDARY FILAMENT TRANSFORMERS

Primary 117 V. Insul. test, 2500 V rms, except model P-6434, 1500 V rms. Mtg. "C". Lead terminations.

Stancor No.	Secondary		Size, Inches D. × W. × H.	Boxed, Net Each, Lots of			
	Volts	Amps		1-9	10-24	25-49	50-99
P-6428*	6.3, 6.3, 6.3, 6.3†	1.75, 1.75, 1.75, 1.75	3⅛ × 2½ × 3⅛	$21.44	$20.28	$18.03	$17.08
P-6430*	6.3†, 6.3†	3.0, 3.0	2⅞ × 2½ × 3⅛	17.11	16.19	14.39	13.63
P-6429*	6.3, 6.3, 6.3, 6.3†	3.5, 3.5, 3.5, 3.5	3½ × 3⅛ × 3⅞	25.07	23.72	21.08	19.97
P-6431*	6.3†, 6.3†	6.0, 6.0	3½ × 3⅜ × 3⅞	25.50	24.13	21.44	20.32
P-6434	12.6, 12.6†	2.5, 2.5	3¼ × 2 13/16 × 3½	20.84	19.72	17.53	16.61

*Has electrostatic shield. †Center tapped. Windings may be connected in series or parallel if properly phased.

MULTITAPPED FOR TUBE CHECKERS

Primary 117 V. Insulation test, 1500 V. Mounting A. Terminations, leads on primary—leads and lugs on secondary.

P-1834-3	1.1, 1.4, 1.5, 2.0, 2.5, 3.3, 4.0, 5.0, 6.3, 7.0, 7.5, 12.0, 20, 25, 30, 35, 50, 70, 85, 107, 117	3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 3.0, 0.8, 0.8, 0.8, 0.8, 0.6, 0.5, 0.3, 0.2, 0.2, 0.2	2⅝ × 4 × 2⅞	$33.36	$31.56	$28.06	$26.58

ESSEX STANCOR Chokes, Transformers

HIGH CURRENT FILTER CHOKES

Inductance measured at 1 volt, 60 Hz. Insulation test voltage is twice allowable rms working voltage plus 1000 volts. Lead termination.

Stancor No.	Inductance mH	DC Amps	DC Resis. Ohms	Insul. Test Vrms	Mtg. Type	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
TC-1	3.0	1.0	.25	1000	A2	1½ × 1⅛ × 1 3/16	$3.40	$3.22	$2.86	$2.71
TC-2	11.0	1.0	.75	1000	A2	1½ × 1⅛ × 1 3/16	4.10	3.88	3.44	3.26
C-2690	300 or 75	1.0 2.0	3.0 .75	1500	NV	2 13/16 × 3 × 3 7/16	22.63	21.41	19.03	18.03
C-2685	35	2.0	.75	1500	NH	2⅝ × 2⅛ × 2 5/16	13.44	12.72	11.31	10.71
C-2691	80 or 20	2.5 5.0	.60 .15	1500	NV	3⅛ × 3½ × 3 13/16	26.13	24.72	21.97	20.82
C-2686	25	4.0	.425	1500	NH	3⅜ × 2⅝ × 2⅞	17.97	17.00	15.11	14.32
C-2687	10	8.0	.15	1500	NH	3¾ × 3 × 3 3/16	20.31	19.22	17.08	16.18
C-2688	10	12.5	.11	1500	NH	4⅛ × 2⅞ × 3½	27.88	26.38	23.44	22.21
C-2689	5	22.5	.03	1500	NH	4½ × 4⅜ × 3 13/16	42.78	40.47	35.97	34.08
C-2692	24 6	20 40	.12 .029	1500	NV	4 7/16 × 5¼ × 5¼	105.37	99.69	88.61	83.95

MINIATURIZED HIGH CURRENT CHOKES

Inductance measured at 1 V, 60 Hz. Insulation test voltage is twice allowable rms working voltage plus 1000 V. Lead termination.

Stancor No.	Inductance mH	DC Amps	DC Resis. Ohms	Insul. Test Vrms	Mtg. Type	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
C-2722	400	.135	31	1500	A	2⅛ × 1⅛ × 1¼	$4.36	$4.13	$3.67	$3.47
C-2724	250	.275	16	1500	A	2⅜ × 1¼ × 1 7/16	4.20	3.97	3.53	3.34
C-2728	75	1.000	2.5	1500	A	3¼ × 1 11/16 × 2	5.91	5.59	4.97	4.71

LOW CURRENT "VERSATILE" CONTROL/RECTIFIER TRANSFORMERS

Primary 117 V, 50/60 Hz. Three isolated 12-volt secondaries (one with a center tap) provide many combinations of voltage and current with series or parallel connections. Ideal for pilot lamps, miniature relays, low current-low voltage power supplies, etc. Mounting type S.

Stancor No.	Secondary No. 1 V	No. 1 A	No. 2 V	No. 2 A	No. 3 V	No. 3 A	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
P-8361	12	.10	12	.10	12 CT	.10	2 × 1½ × 1¾	$6.57	$6.22	$5.53	$5.24
P-8362	12	.15	12	.15	12 CT	.15	2⅜ × 1¾ × 2	10.41	9.84	8.75	8.29
P-8363	12	.25	12	.25	12 CT	.25	2⅞ × 1¾ × 2⅜	10.70	10.13	9.00	8.53
P-8364	12	.50	12	.50	12 CT	.50	2⅞ × 2⅛ × 2⅜	11.92	11.28	10.03	9.50

MINIATURE POWER TRANSFORMERS

Primary 115 V, 50-60 Hz. Insulation test voltage, 500 V rms between all windings and to core. Printed circuit board mounting with plug-in type terminals.

1.5 VA RATING

Size: 1⅛" h. × 1 13/32" w. × 1 5/32" d. Weight: 0.22 lb. Style PC.

Stancor No.	Output from two secondaries Individually	Parallel	Series	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
PPC-1	4 V @ .188 A	7 V @ .376 A	8 V @ .188 A	$8.56	$8.09	$7.19	$6.82
PPC-2	7.5 V @ .100 A	7.5 V @ .200 A	15 V @ .100 A	8.53	8.08	7.18	6.80
PPC-3	15 V @ .050 A	15 V @ .100 A	30 V @ .050 A	9.08	8.59	7.64	7.24
PPC-4	27 V @ .028 A	27 V @ .056 A	54 V @ .028 A	9.63	9.11	8.10	7.67
PPC-5	38 V @ .020 A	38 V @ .040 A	76 V @ .020 A	10.27	9.72	8.64	8.18
PPC-6	58 V @ .013 A	58 V @ .026 A	116 V @ .013 A	11.46	10.84	9.64	9.13
PPC-7	20 V @ .038 A	20 V @ .076 A	40 V @ .038 A	10.41	9.84	8.75	8.29

4.5 VA RATING

Size: 1 13/32" h. × 2⅜" w. × 1¼" d. Weight: 0.47 lb. Style APC.

Stancor No.	Individually	Parallel	Series	1-9	10-24	25-49	50-99
PPC-11	4 V @ .562 A	4 V @ 1.13 A	8 V @ .562 A	$7.48	$7.08	$6.29	$5.96
PPC-12	7.5 V @ .300 A	7.5 V @ .600 A	15 V @ .300 A	7.48	.708	6.29	5.96
PPC-13	15 V @ .150 A	15 V @ .300 A	30 V @ .150 A	7.48	7.08	6.29	5.96
PPC-14	27 V @ .084 A	27 V @ .168 A	54 V @ .084 A	7.48	7.08	6.29	5.96
PPC-15	38 V @ .060 A	38 V @ .120 A	76 V @ .060 A	6.99	6.61	5.88	5.57
PPC-16	58 V @ .033 A	58 V @ .066 A	116 V @ .033 A	7.48	7.08	6.29	5.96
PPC-17	20 V @ .112 A	20 V @ .224 A	40 V @ .112 A	7.85	7.42	6.60	6.25

7.5 VA RATING

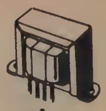
Size: 1⅝" h. 2 13/16" w. × 1 15/32" d. Weight: 0.66 lb. Style APC.

Stancor No.	Individually	Parallel	Series	1-9	10-24	25-49	50-99
PPC-21	4 V @ .940 A	4 V @ 1.88 A	8 V @ .940 A	$8.84	$8.36	$7.43	$7.04
PPC-22	7.5 V @ .500 A	7.5 V @ 1.00 A	15 V @ .500 A	9.00	8.52	7.57	7.17
PPC-23	15 V @ .250 A	15 V @ .500 A	30 V @ .250 A	8.84	8.36	7.43	7.04
PPC-24	27 V @ .140 A	27 V @ .280 A	54 V @ .140 A	9.00	8.52	7.57	7.17
PPC-25	38 V @ .100 A	38 V @ .200 A	76 V @ .100 A	9.00	8.52	7.57	7.17
PPC-26	58 V @ .065 A	58 V @ .130 A	116 V @ .065 A	9.58	9.06	8.06	7.63
PPC-27	20 V @ .188 A	20 V @ .376 A	40 V @ .188 A	8.84	8.36	7.43	7.04

MINIATURE DUAL PRIMARY POWER TRANSFORMERS

Dual primaries can be connected for 115 or 230 VAC, 50 or 60 Hz. PPC-8, style PC, weight, .22 lbs; all others, style APC, weight .47 lbs.

Stancor No.	Output from two secondaries Individually	Parallel	Series	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
PPC-8	15 V @ .050 A	15 V @ .100 A	30 V C.T. @ .050 A	$7.93	$7.50	$6.67	$6.32
PPC-18	6.3 V @ .350 A	6.3 V @ .700 A	12.6 V C.T. @ .350 A	7.80	7.38	6.56	6.21
PPC-19	8 V @ .280 A	8 V @ .560 A	16 V C.T. @ .280 A	9.00	8.52	7.57	7.17
PPC-20	12 V @ .180 A	12 V @ .360 A	24 V C.T. @ .180 A	9.00	8.52	7.57	7.17
PPC-28	10 V @ .225 A	10 V @ .450 A	20 V C.T. @ .225 A	8.89	8.41	7.47	7.08
PPC-29	115 V @ .020 A	115 V @ .040 A	230 V C.T. @ .020 A	9.26	8.77	7.79	7.38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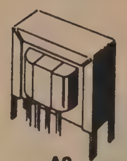
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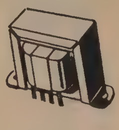
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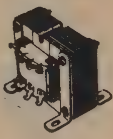
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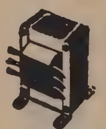
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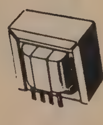
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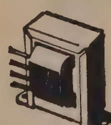
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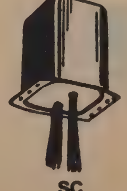
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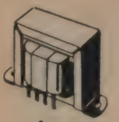
ESSEX STANCOR Filter Chokes and Transformers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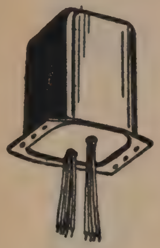
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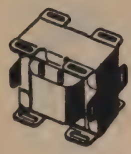
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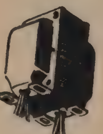
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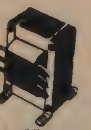
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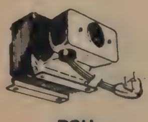

PSU

SMOOTHING FILTER CHOKES

Inductance tolerance, − 15% + 50% at 10 volts, 60 Hz. Insulation test voltage is twice allowable rms working voltage plus 1000 volts. Lead termination unless otherwise noted.

Stancor No.	Inductance H	DC mA	DC Resis. Ohms	Insul. Test Vrms	Mtg. Type	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
C-2345	350	5	5600	2500	A	3¼ × 1¾ × 2	$7.73	$7.31	$6.50	$6.16
C-2344	1.5	10	85	2500	A	2⅛ × 1⅛ × 1¼	5.38	5.09	4.53	4.29
C-2707	2.0	15	70	1500	A	2⅛ × 1⅛ × 1¼	3.83	3.63	3.22	3.05
C-1515	20.0	15	900	1500	A	2⅞ × 1⅜ × 1⅝	5.68	5.38	4.78	4.53
C-2346	35.0	15	1800	1500	A	2⅜ × 1⅜ × 1⅜	5.65	5.34	4.75	4.50
C-2318	12.0	30	400	2000	A	2⅜ × 1⅜ × 1⅜	4.53	4.28	3.81	3.61
C-1080	3.5	50	200	1500	A	2⅞ × 1⅜ × 1⅝	5.12	4.84	4.31	4.08
C-1706	4.5	50	300	1500	A	2⅜ × 1¼ × 1⅜	4.06	3.84	3.42	3.24
C-1325	5.0	50	250	1500	A	2⅞ × 1¼ × 1⅝	4.79	4.53	4.03	3.82
C-1707	7.0	50	550	1500	A	2⅜ × 1¼ × 1⅜	4.16	3.94	3.50	3.32
C-1333	8.0	50	450	1500	A	2⅞ × 1⅜ × 1⅝	5.68	5.38	4.78	4.53
C-1279	8.5	50	400	1500	A	2⅞ × 1⅜ × 1⅝	4.66	4.41	3.92	3.71
C-1215	9.0	50	500	1500	A	2⅞ × 1⅜ × 1⅝	4.86	4.59	4.08	3.87
C-1003	16.0	50	580	1500	A	3¼ × 1⅝ × 2	7.23	6.84	6.08	5.76
C-1355*	8.0	75	290	1500	L	2 × 2⅜ × 2	7.96	7.53	6.69	6.34
C-1002	15.0	75	400	1500	A	3¾ × 2 × 2⅜	8.23	7.78	6.92	6.55
C-1709	8.0	85	250	1500	A	3¼ × 1⅞ × 2	7.99	7.56	6.72	6.37
C-1001	10.5	110	225	3000	A	4 × 2⅛ × 2⅝	10.87	10.28	9.14	8.66
C-2303	2.5	130	100	2000	A	3¼ × 1⅝ × 2	5.95	5.63	5.00	4.74
C-2304	2.3	150	60	1500	A	3¼ × 1¾ × 2	4.36	4.13	3.67	3.47
C-1710	7.0	150	200	1500	A	4 × 2 × 2⅝	10.90	10.31	9.17	8.68
C-2327	1.5	200	85	1500	A	2⅞ × 1½ × 1⅝	5.81	5.50	4.89	4.63
C-2325	2.0	200	60	1500	A	3¾ × 1⅞ × 2⅜	9.12	8.63	7.67	7.26
C-1721	8.5	200	120	3000	NV	2 13/16 × 2⅝ × 3 7/16	18.70	17.69	15.72	14.90
C-2717	4.0	250	100	2500	A	4 × 2⅛ × 2⅝	11.07	10.47	9.31	8.82
C-1412	4.0	250	60	3000	C	2 13/16 × 3⅝ × 3½	20.45	19.34	17.19	16.29
C-2343	0.75	300	32	1500	A	2⅞ × 1⅜ × 1⅝	5.02	4.75	4.22	4.00
C-2326	1.0	300	43	1500	A	3¾ × 2 × 2⅜	9.12	8.63	7.67	7.26
C-2334	2.8	300	60	1500	A	4 × 2⅛ × 2⅝	10.67	10.09	8.97	8.50
C-1722	8.0	300	80	3000	NV	3¾ × 3 × 4 9/16	32.54	30.78	27.36	25.92
C-2347	1.0	350	40	1500	A	3¼ × 1¾ × 2	6.97	6.59	5.86	5.55
C-2328	0.8	375	25	1500	A	3¾ × 1⅞ × 2⅜	7.86	7.44	6.61	6.26
C-2709	2.0	400	40	2500	A	4 × 2⅛ × 2⅝	14.53	13.75	12.22	11.58
C-2708	0.32	600	10	1500	A	3¼ × 1⅝ × 2	7.00	6.63	5.89	5.58

*With lugs.

STEP-DOWN AUTOTRANSFORMERS

Primary 230 V, 50/60 Hz; line cord and plug. Secondary 115 V; standard female receptacle.

Stancor No.	Cap. VA	Mtg. Type	Size, Inches W. × D. × H.	Wt., Lbs.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
P-6287	40	C	2⅝ × 2½ × 3½	2.2	$20.94	$19.81	$17.61	$16.68
P-8620*	50	A	13 11/16 × 1⅞ × 2 5/16	1.5	9.12	8.63	7.67	7.26
P-8630	85	C	2⅝ × 2¾ × 3½	2.5	21.01	19.86	17.67	16.74
P-8631	125	C	2⅝ × 3 × 3½	3.0	22.96	21.72	19.31	18.29
P-8632	200	C	3⅛ × 3¾ × 3⅞	4.2	29.00	27.44	24.34	23.11
P-8633	300	C	3⅛ × 4⅛ × 3⅞	5.2	32.30	30.56	27.17	25.74
P-8634	400	C	3⅛ × 4¾ × 3⅞	7.0	37.42	35.41	31.47	29.82
P-8635	500	C	3¾ × 4¾ × 4 9/16	10.3	52.45	49.63	44.11	41.79
P-8636	1000	C	3¼ × 6⅜ × 4 9/16	17.0	71.12	67.28	59.81	56.66

*Has lead wires.

STEP-UP AUTOTRANSFORMERS

Primary 115 V. 50/60 Hz; line cord and plug. Secondary 230 V; standard female receptacle.

P-8637	85	C	2⅝ × 2¾ × 3½	2.5	$21.70	$20.53	$18.25	$17.29
P-8638	125	C	2⅝ × 3 × 3½	3.0	22.13	20.94	18.61	17.63
P-8639	300	C	3⅛ × 3⅞ × 3⅞	5.2	32.21	30.47	27.08	25.66
P-8640	500	C	3¾ × 4¾ × 4 9/16	1.3	53.08	50.22	44.64	42.29

STEP-DOWN AUTOTRANSFORMERS

Grounded safety type: 3-wire NEMA standard line cord, plug and receptacle. Semi-shielded construction.

Stancord No.	Input V	Output V	Test Vrms	Cap. VA	Mtg. Type	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of 1-9	10-24	25-49	50-99
GSD-75	230	115	1500	75	C	3 3/16 × 2¾ × 3⅞	$24.58	$23.25	$20.67	$19.58
GSD-100	230	115	1500	100	C	3 3/16 × 3 × 3⅞	27.18	25.72	22.86	21.66
GSD-150	230	115	1500	150	C	3 3/16 × 3¼ × 3⅞	28.04	26.53	23.58	22.34
GSD-250	230	115	1500	250	C	3 13/16 × 3⅝ × 3⅞	44.06	41.69	37.06	35.11
GSD-300	230	115	1500	300	C	3 3/16 × 3⅝ × 3⅞	33.00	31.22	27.75	26.29
GSD-350	230	115	1500	350	C	3 13/16 × 4 5/16 × 3⅞	38.08	36.03	32.03	30.34
GSD-500	230	115	1500	500	C	3 13/16 4 7/16 × 4⅝	46.54	43.94	39.06	37.00
GSD-750	230	115	1500	750	C	3 13/16 × 5 3/16 × 4⅝	57.87	54.75	48.67	46.11
GSD-1000	230	115	1500	1000	C	3 13/16 × 6 × 4⅝	67.12	63.50	56.44	53.47
GSD-1500	230	115	1500	1500	C	4⅝ × 6 × 5½	107.68	101.88	90.56	85.79

230-VOLT STEP-DOWN AUTOTRANSFORMERS

Has three-wire line cord and receptacle. Connection changes inside outlet box will provide either 208/230 volts or 230/208 volts.

PSU-3000	208/230	230/208	1750	3000	PSU	4½ × 6 × 4	52.35	49.53	44.03	41.71

ISOLATION TRANSFORMERS

Case and core and electrostatic shield internally connected to third conductor of NEMA standard cord and receptacle for safety. May be operated from a 400 Hz source with no change in output ratings.

STRAIGHT ISOLATION

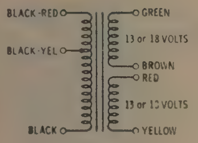
GIS-100	115	115	1500	100	C	2 13/16 × 3 9/16 × 3½	$28.11	$26.59	$23.64	$22.40
GIS-150	115	115	1500	150	C	3 3/16 × 4 3/16 × 3⅞	35.94	34.00	30.22	28.63
GIS-250	115	115	1500	250	C	3¼ × 4⅜ × 4 11/16	44.06	41.69	37.06	35.11
GIS-500	115	115	1500	500	C	3¾ × 6 × 4 11/16	68.37	64.69	57.50	54.47
GIS-1000	115	115	1500	1000	C	4 9/16 × 8⅛ × 5½	143.78	136.03	120.92	114.55

STEP-DOWN ISOLATION

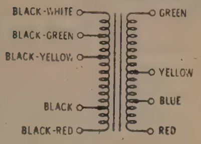
GISD-100	230	115	1500	100	C	2 13/16 × 3 9/16 × 3½	$28.18	$26.66	$23.69	$22.45
GISD-150	230	115	1500	150	C	3⅛ × 4 3/16 × 3⅞	37.03	35.03	31.14	29.50
GISD-250	230	115	1500	250	C	3¼ × 4¼ × 4 11/16	45.02	42.59	37.86	35.87
GISD-500	230	115	1500	500	C	3¾ × 6 × 4 11/16	67.09	63.47	56.42	53.45
GISD-1000	230	115	1500	1000	C	4 9/16 × 8⅛ × 5½	118.05	111.69	99.28	94.05

ESSEX STANCOR Transformers

RECTIFIER TRANSFORMERS



TP-1



TP-2 THRU TP-6

TYPICAL SECONDARY VOLTS

6.5
7.5
8.0
9.0
9.5
10.0
13.5 CT
14.5 CT
16.0 CT
18.0 CT
19.0 CT
20.0
21.0 CT
22.0
24.0
26.5 CT
27.0
28.0
29.0 CT
31.5
32.0 CT
35.5 CT
37.0 CT
42.0 CT

Pri. 117 V, 60 Hz. May be operated from a 400 Hz source with no change in output. Wire termination.

Stancor No.	Max. Current, mADC			Mtg.	Size, In., W. × D. × H.	Wt., Lbs	Boxed, Net Each, Lots of			
	Full-Wave CT	Bridge	½-Wave				1-9	10-24	25-49	50-99
TP-1	1500	900	450	C	2½ × 3 × 3⅛	2.7	$17.31	$16.38	$14 56	$13.79
TP-2	150	100	50	A	2⅞ × 1⅞ × 1⅝	.7	8.97	8.48	7.54	7.15
TP-3	400	300	150	A	3¾ × 2⅛ × 1⅜	1.5	11.56	10.94	9.72	9.21
TP-4	1500	1000	500	C	2½ × 3⅛ × 3⅛	3.2	19.16	18.13	16.11	15.26
TP-5	100	750	375	A	4 × 2⅜ × 2⅝	2.3	14.52	13.73	12.21	11.57
TP-6	50	35	25	A	2⅜ × 1 7/16 × 1⅜	.45	7.37	6.97	6.19	5.87

UNIVERSAL SILICON OR SELENIUM RECTIFIER TRANSFORMERS

Primary 117 VAC, 50/60 Hz. Mounting type NV with solder lug termination.

Stancor No.	Approx. Applied VAC Under Load	Max. DC Output				Filter Capacitor, µF	Boxed, Net Each, Lots of			
		Resistive or Induct. Load		Capacitive Load						
		Volts	Amps	Volts	Amps		1-9	10-24	25-49	50-99
RT-201	11.7-29.4	11.2	2.0	13.8	2.0	1000	$20.08	$19.00	$16.89	$16.00
RT-201†	11.1-28.5	23.0	1.25	30.0	1.25	500	20.08	19.00	16.89	16.00
RT-202*	12.0-29.8	11.1	4.0	14.7	4.0	2000	20.61	19.50	17.53	16.42
RT-202†	12.0-29.8	24.3	2.0	33.0	2.0	1000	20.61	19.50	17.53	16.42
RT-204*	11.7-29.2	12.0	8.0	14.5	8.0	4000	32.12	30.39	27.01	25.59
RT-204†	11.6-29.2	24.0	4.0	32.4	4.0	2000	32.12	30.39	27.01	25.59
RT-206*	12.0-29.7	11.5	12.0	14.4	12.0	6000	43.60	41.25	36.67	34.74
RT-206†	12.0-29.7	24.0	6.0	32.0	6.0	3000	43.60	41.25	36.67	34.74
RT-208*	12.1-29.2	11.4	15.0	14.8	15.0	7500	61.67	58.34	51.86	49.13
RT-208†	12.1-29.2	23.7	8.0	32.5	8.0	4000	61.67	58.34	51.86	49.13
RT-2012*	12.2-29.0	11.4	22.5	14.3	22.5	12000	88.64	83.86	74.54	70.62
RT-2012†	12.2-29.0	23.5	12.0	33.0	12.0	6000	88.64	83.86	74.54	70.62
RT-400*	23.5-60.0	25.0	1.0	34.0	1.0	1500	18.60	17.59	15.64	14.82
RT-400†	23.5-60.0	53.0	0.5	74.0	0.5	600	18.60	17.59	15.64	14.82
RT-401*	24.0-59.0	25.0	2.0	34.0	2.0	2500	26.52	25.09	22.31	21.13
RT-401†	24.0-59.0	52.5	1.0	73.5	1.0	1500	26.52	25.09	22.31	21.13
RT-402*	23.0-58.0	25.0	4.0	33.5	4.0	3000	37.66	35.63	31.67	30.00
RT-402†	23.0-58.0	51.5	2.0	72.5	2.0	1500	37.66	35.63	31.67	30.00
RT-406†	25.0-53.5	44.0	8.0	63.0	8.0	4000	120.83	114.31	101.61	96.26
RT-4012†	25.0-53.5	43.5	12.0	60.0	12.0	6000	161.55	152.84	135.86	128.71

*CT rectifier circuit. †Bridge rectifier circuit.

POWER CIRCUIT TRANSFORMERS

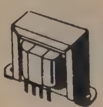
For 50/60 Hz. Lead wire termination. Mounting type PCF.

Stancor No.	Primary Volts	Secondary		VA Cap.	Size, Ins. W. × D. × H.	Boxed, Net Each, Lots of			
		Volts	Amps			1-9	10-24	25-49	50-99
PCF-2025	230	115	.25	25	3 × 3 × 2 13/16	$15.06	$14.25	$12.67	$12.00
PCF-2050	230	115	.45	50	3 × 3½ × 2 13/16	16.52	15.63	13.89	13.16
PCF-24075	230/460	115	.65	75	3½ × 3½ × 3 3/16	22.66	21.44	19.06	18.05
PCF-24250	230/460	115	2.2	250	5¼ × 4 9/16 × 4 9/16	54.43	51.50	45.78	43.37

POWER TRANSFORMERS FOR 100 WS ELECTRONIC PHOTOFLASH

Primary for 105/115/125 volts, 60 Hz. For use on half-wave circuit to charge 1050 MFD capacitor to 450 VDC.

Stancor No.	Mtg. Type	Secondary		Termination	Size, Inches W. × D. × H.	Boxed, Net Each, Lots of			
		Volts	mA			1-9	10-24	25-49	50-99
P-6425	S	380	20	Leads	2⅞ × 2 × 2 5/16	$11.43	$10.81	$9.61	$9.11
P-6426	W	Trigger coil for P6425			¾ × 9/16	5.88	5.56	4.94	4.68



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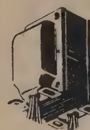

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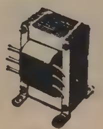

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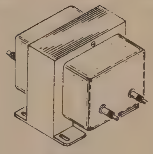

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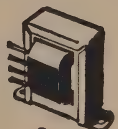

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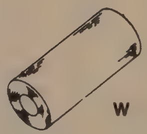

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POWERSTAT® VARIABLE TRANSFORMERS WITH POWERKOTE® COILS

POWERSTAT Variable Transformers with POWERKOTE Coils give an average of 20% higher current ratings, 10:1 greater overload capability, longer life, greater resistance to fungus, salt spray and other contaminating atmospheres. POWERKOTE Coil commutator bars are embedded in place, preventing steady-state operating temperature and severe overloads from distorting the commutator. POWERSTAT Variable Transformers deliver continuously adjustable voltage from AC lines; feature rugged construction, precious metal-plated commutators, excellent regulation, high efficiency and conservative ratings. They introduce no waveform distortion. Manual and motorized single and ganged assemblies are offered in ratings from .13 to 244 kVA. For complete technical data request current POWERSTAT catalog.

10C

126

116B

21

136B

1256D

DIGITAL MOTOR DRIVES

Motor-driven units in Series 116B-216B, 117B-217B, 126-226, 136B-236B and 146-246 are available with digital motor drive which permits full range output voltage to be controlled at any speed, 5 to 200 secs. **To Order:** Add prefix **DM** to type number and **$450.00** to the motor driven price. For digital motor control **65455-001**, add **$30.50** to price.

SINGLE PHASE

Superior Number*	Line Volts	Frequency Hz	Output Volts	Output Max. Amps	Output Max. kVA	Net Each Manual	Net Each Motor* Driven
•10C	120	60■	0–132	2.25#	0.30	$ 23.00	....
•21	120	50/60	0–140	5	0.63	38.00	$ 213.00
•116BC	120	50/60	0–140	10	1.4	49.00	224.00
•116B§	120	50/60	0–140	10	1.4	76.00	249.00
117BT	120	60	0–120	12	1.4	76.00	249.00
•126U	120	50/60	0–140	15	2.1	103.00	358.00
•126	120	50/60	0–140	15	2.1	114.00	364.00
•3PN126	120	50/60	0–140	15	2.1	153.00	403.00
•136B	120	50/60	0–140	22	3.1	163.00	413.00
•3PN136B	120	50/60	0–140	22	3.1	222.00	472.00
•1156D	120	50/60	0–140	50	7.0	366.00	616.00
136B-3‡	120	50/60	0–140	66	9.2	631.00	881.00
1156D-2P	120	50/60	0–140	100	14.0	796.00	1046.00
1156D-3P	120	50/60	0–140	150	21.0	1394.00	1644.00
1156D-4P	120	50/60	0–140	200	28.0	1941.00	2191.00
1156D-6P	120	50/60	0–140	300	42.0	2823.00	3073.00
•12	240	50/60	0–264	0.5	0.13	34.00	....
10C-2	240	60■	0–264	2.25#	0.59	80.00	....
•22	240	50/60	0–280	2.5	0.70	56.00	231.00
•216BU	240†	50/60	0–280	3.5	0.98	66.00	241.00
•216B§	240†	50/60	0–280	3.5	0.98	95.00	270.00
21-2	240	50/60	0–280	5	1.3	128.00	303.00
217BT	240	60	0–240	5	1.2	87.00	262.00
•226U	240†	50/60	0–280	7.5	2.1	103.00	353.00
•226	240†	50/60	0–280	7.5	2.1	118.00	368.00
3PN226	240†	50/60	0–280	7.5	2.1	158.00	408.00
116BU-2	240	50/60	0–280	10	2.8	151.00	426.00
116BT-2	240	50/60	0–280	10	2.8	191.00	366.00
•236B	240†	50/60	0–280	10	2.8	163.00	413.00
•3PN236B	240†	50/60	0–280	10	2.8	222.00	472.00
117BT-2	240	60	0–240	12	2.9	207.00	382.00
•246	240†	50/60	0–280	15	4.2	267.00	517.00
126U-2	240	50/60	0–280	15	4.2	240.00	490.00
126-2	240	50/60	0–280	15	4.2	287.00	537.00
•136B-2▲	240†	50/60	0–280	22	6.2	406.00	656.00
•1256D	240†	50/60	0–280	28	7.8	366.00	616.00
146-2♦	240	50/60	0–280	30	8.4	633.00	883.00
1156D-2S	240	50/60	0–280	50	14.0	742.00	992.00
1256D-2P	240†	50/60	0–280	56	15.7	772.00	1022.00
1256D-3P	240†	50/60	0–280	84	23.5	1369.00	1619.00
1156D-4PS	240	50/60	0–280	100	28.0	1902.00	2152.00
1256D-4P	240†	50/60	0–280	112	31.4	1941.00	2191.00
1156D-6PS	240	50/60	0–280	150	42.0	2778.00	3028.00
1256D-6P	240†	50/60	0–280	168	47.0	2823.00	3073.00
12-2	480	50/60	0–528	0.5	0.26	101.00	....
22-2	480	50/60	0–560	2.5	1.4	165.00	340.00
216BT-2	480†	50/60	0–560	3.5	2.0	224.00	399.00
217BT-2	480	60	0–480	5	2.4	229.00	404.00
226-2	480†	50/60	0–560	7.5	4.2	292.00	542.00
236B-2▲	480†	50/60	0–560	10	5.6	398.00	648.00
246-2▲	480†	50/60	0–560	15	8.4	633.00	883.00
1256D-2S	480†	50/60	0–560	28	15.7	722.00	972.00
1256D-4PS	480†	50/60	0–560	56	31.4	1902.00	2152.00
1256D-6PS	480†	50/60	0–560	84	47.0	2778.00	3028.00

THREE PHASE

Superior Number*	Line Volts	Frequency Hz	Output Volts	Output Max. Amps	Output Max. kVA	Net Each Manual	Net Each Motor* Driven
10C-2	120	60■	0–132	2.25#	0.51	$ 80.00	....
21-2	120	50/60	0–140	5	1.1	128.00	$ 303.00
116BU-2	120	50/60	0–140	10	2.4	151.00	326.00
116BT-2	120	50/60	0–140	10	2.4	191.00	366.00
117BT-2	120	60	0–120	12	2.5	207.00	382.00
126U-2	120	50/60	0–140	15	3.6	240.00	490.00
126-2	120	50/60	0–140	15	3.6	287.00	537.00
136B-2▲	120	50/60	0–140	22	5.3	406.00	656.00
146-2♦	120	50/60	0–140	30	7.3	633.00	883.00
1156D-2D	120	50/60	0–140	50	12.1	755.00	1005.00
1156D-4D	120	50/60	0–140	100	24.2	1855.00	2105.00
1156D-6D	120	50/60	0–140	150	36.4	2778.00	3028.00
12-2	240	50/60	0–264	0.5	0.23	101.00	....
10C-3	240	60■	0–240	2.25#	0.94	125.00	....
22-2	240	50/60	0–280	2.5	1.2	165.00	335.00
216BU-2	240†	50/60	0–280	3.5	1.7	174.00	349.00
216BT-2	240†	50/60	0–280	3.5	1.7	224.00	399.00
21-3	240	60■	0–280	5	2.2	201.00	376.00
217BT-2	240	60	0–240	5	2.1	229.00	404.00
226-2	240†	50/60	0–280	7.5	3.6	292.00	542.00
116BT-3	240	60■	0–280	10	4.8	274.00	449.00
236B-2▲	240†	50/60	0–280	10	4.8	398.00	648.00
117BT-3	240	60	0–240	12	5.0	288.00	463.00
126-3	240	60■	0–280	15	7.3	441.00	691.00
136B-3‡	240	60■	0–280	22	10.7	631.00	881.00
1256D-2D	240†	50/60	0–280	28	13.6	741.00	991.00
146-3††	240	60■	0–280	30	14.5	944.00	1194.00
1156D-3Y	240	60■	0–280	50	24.2	1265.00	1515.00
1256D-4D	240†	50/60	0–280	56	27.2	1855.00	2105.00
1256D-6D	240†	50/60	0–280	84	40.7	2778.00	3028.00
1156D-6Y	240	60■	0–280	100	48.5	2733.00	2983.00
12-3	480	60■	0–528	0.5	0.46	155.00	....
22-3	480	60■	0–560	2.5	2.4	256.00	431.00
216BT-3	480†	60■	0–560	3.5	3.4	305.00	480.00
217BT-3	480	60	0–480	5	4.2	327.00	502.00
226-3	480†	60■	0–560	7.5	7.3	447.00	697.00
236B-3‡	480†	60■	0–560	10	9.7	587.00	837.00
246-3‡	480†	60■	0–560	15	14.5	945.00	1195.00
1256D-3Y	480†	60■	0–560	28	27.2	1283.00	1533.00
1256D-6Y	480†	60■	0–560	56	54.3	2733.00	2983.00

EXPLANATION OF FOOTNOTES

***Letters in Part Numbers Indicate as Follows:**

3PN—NEMA plug and receptacle.

Suffix letters and numbers (2, 2S, 4P, 6P, etc.), indicate ganged units. Numeral shows number of units in assembly.

U—Supplied without protective screening, terminal enclosure, input cord, output receptacle, fuse or switch.

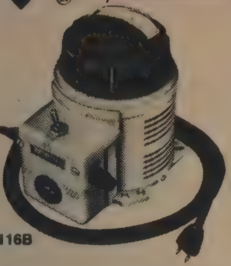
*Add type number prefix from table below to Superior Powerstat No. for full-range travel motor speed desired; e.g., type **5M**21 is 5-sec No. 21 Powerstat, **15MC**126 is 15-sec No. 126 Powerstat, etc. Four-gang or larger types not available in 5-sec speed.

Superior Powerstat Series	Prefix for Full-Range Travel Motor Speed 5 Sec	15 Sec	30 Sec	60 Sec
21-22 116B-216B 117B-217B 146-246	5M	15M	30M	60M
1156D-1256D	5MB	15MB	30MB	60MB
126-226	5MC	15MC	30MC	60MC
136B-236B	5MD	15MD	30MD	60MD

†Also has terminals for operating at ½ this input voltage. ‡For parallel connection, order T5579B choke at **$132.60** extra. §Also available as 3PN type. #Metal panel mounted rating. See published derating for brackets and nonmetallic panels. ▲For parallel connection, order T5000B choke at **$69.10** extra. ■If the maximum output voltage is limited to the input voltage, the frequency range is 50-60 Hz. ♦For parallel connection, order T6053 choke at **$94.50** extra. ††For parallel connection, order T6065 choke at **$165.70** extra.

•AVAILABLE OFF-THE-SHELF FROM STOCK.

Superior Electric® POWERSTAT VARIABLE TRANSFORMERS



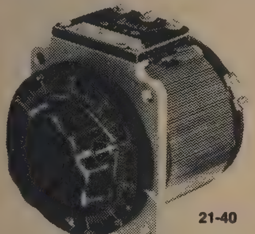
VS116B

METERED KNOB POWERSTAT® VARIABLE TRANSFORMERS

Stationary, direct-reading volt-meter on knob has accuracy of ±3% FS. Voltmeter does not turn with knob; insensitive to stray magnetic fields. Saves panel space, wiring and installation costs. Series 21-22 thru 146-246 back-of-panel mounted types may be combined with metered knob assemblies. Existing models can be retrofitted also.

Superior Type	Line Volts	Freq. Hz	Output			Price Each
			Volts	Amps‡	kVA‡	
VS116B*	120	50/60	0–140	10	1.4	$225.00
VS117BT*	120	60	0–120	12	1.4	231.00
VS126*	120	50/60	0–140	15	2.1	273.00
VS136B*	120	50/60	0–140	22	3.1	324.00
VS146	120	50/60	0–140	30	4.2	440.00
VS216B*	240†	50/60	0–280	3.5	0.98	239.00
VS217BT*	240	60	0–240	5	1.2	240.00
VS226*	240†	50/60	0–280	7.5	2.1	286.00
VS236B*	240†	50/60	0–280	10	2.8	320.00
VS246	240†	50/60	0–280	15	4.2	440.00

*Also available with cord-plugs shown in standard type chart. †Has terminals for operating at half input voltage. ‡Max.



21-40

40-VOLT POWERSTAT VARIABLE TRANSFORMERS

Meet the high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. All types are open construction. Individual units in ganged assemblies have the same electrical ratings as single units of the corresponding type number.

SINGLE PHASE

Superior Type	Line Volts	Freq. Hz	Output			Price Each	
			Volts	Max. Amps	Max. kVA	Man-ual	Motor* Driven
•10B-40	40	60	0–40	6	.24	★	.....
10B-40-2†	40	60	0–40	6	.24	★	.....
10B-40-3†	40	60	0–40	6	.24	★	.....
•21-40	40	60	0–40	15	.6	★	.....
21-40-2†	40	60	0–40	15	.6	★	.....
21-40-3†	40	60	0–40	15	.6	★	.....
116BU-40	40	60	0–40	25	1.0	★	.....
116BU-40-2†	40	60	0–40	25	1.0	★	.....
116BU-40-3†	40	60	0–40	25	1.0	★	.....

★Prices available on request.
*Add type number prefix for full range travel motor speed desired: **5M** for 5 sec.; **15M** for 15 sec.; **30M** for 30 sec.; **60M** for 60 sec. (for example, **15M**21-40). †Ratings given apply separately to each unit in assembly.

DOUBLE WOUND POWERSTAT VARIABLE TRANSFORMERS WITH ISOLATED SECONDARY

POWERSTAT type LW136B is a double wound assembly with an isolated secondary. When ordering (*) motor driven assemblies prefix type number with desired speed of either 5, 15, 30 or 60 seconds for full range travel and letters MD (for example, 5MDLW136B-3). Any of the ratings given below are possible simply by using the proper terminal connections. These are only a few of the many ratings that can be obtained. Data sheet on request.

Superior Type	Line Volts	Output			Price Each	
		Volts	Max. Amps	Max. kVA	Man-ual	Motor* Driven
•LW136B For 50/60 Hz single phase	120 120 240 240 120 107–137 240 226–256	0–30 15–0–15 0–30 15–0–15 105–135 120 225–255 240	25 35 25 35 35 35 35 35	.75 .52 .75 .52 4.7 4.2 8.9 8.4	$249.00	$ 499.00
LW136B-3 For 60 Hz three- phase	240 214–260 480 452–512	210–270 240 450–510 480	35 35 35 35	16.4 14.6 31.0 29.1	900.00	1150.00

*Add type number prefix for full range travel motor speed desired; **5M** for 5 sec.; **15M** for 15 sec.; **30M** for 30 sec.; **60M** for 60 sec. (for example, **15M**21-40). †Ratings given apply separately to each unit in assembly.

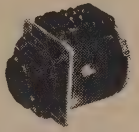
ENCLOSED L SERIES POWERSTAT VARIABLE TRANSFORMERS

L116B

Enclosed laboratory models are equipped with grounded NEMA cord/plug assembly, on-off switch, pilot light, fuse and output receptacle. Integral handle; recessed controls. Slot, provided at the rear, accepts wall hanger bracket. Meets OSHA requirements.

Superior Type	Input Freq., Hz	Output			Price Each
		Volts	Amps*	kVA*	
•L10B	60	0–132	2.25	0.30	$ 69.00
•L21	50/60	0–140	4.5	0.63	89.00
•L116B	50/60	0–140	10	1.4	105.00

*Ratings for constant current load.



COMPACT Q TYPE POWERSTATS

Ideally suited for applications where space is a critical factor. Compact, square frame units available only in manually operated open construction assemblies. Removable shafts may be extended from either end of unit.

SINGLE PHASE

Superior Type*	Line Volts	Input Freq. Hz	Output			Price Each
			Volts	Max. Amps	Max. kVA	
•Q116U	120	50/60	0–120 0–140	9 9	1.1 1.3	$ 52.00
•Q117U	120	60	0–120	10	1.2	62.00
•Q216U	240 120	50/60	0–280 0–260	3.5 3.5	0.98 0.42	66.00
•Q217U	240	60	0–240	5	1.2	69.00
Q116U-2	240	50/60	0–240 0–280	9 9	2.2 2.5	156.00
Q117U-2	240	60	0–240	10	2.4	177.00
Q216U-2	480 240	50/60	0–560 0–560	3.5 3.5	2.0 0.85	180.00
Q217U-2	480	60	0–480	5	2.4	191.00
THREE PHASE						
Q116U-2	120	50/60	0–120 0–140	9 9	1.9 2.2	$156.00
Q117U-2	120	60	0–120	10	2.1	177.00
Q216U-2	240 120	50/60	0–280 0–280	3.5 3.5	1.7 0.74	180.00
Q217U-2	240	60	0–240	5	2.1	191.00
Q116U-3	240	50/60 60	0–240 0–280	9 9	3.8 4.4	218.00
Q117U-3	240	60	0–240	10	4.2	231.00
Q216U-3	480 240	60 60	0–560 0–560	3.5 3.5	3.4 1.5	247.00
Q217U-3	480	60	0–480	5	4.2	275.00

*Number suffix indicates ganged assembly; number is no. of units.

EN TYPE POWERSTATS

Wide application and mounting flexibility. Housed in lightweight, functional aluminum enclosures that permit easy installation, wiring and servicing. Single units and ganged assemblies available for 120, 240 and 480 volt, single and three phase service with loads up to 6.0 kVA. Data sheet on request. Single units below size: 5¾″ w. × 6″ d. × 6^{13}/$_{16}$″ h. Shipping Weight, 15 lbs.

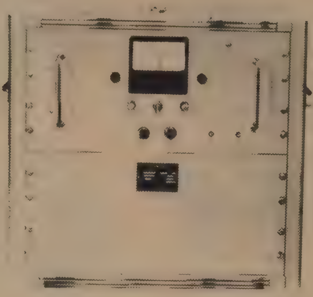
Superior Type†	Input		Output			Price Each
	Volts	Freq.	Volts	Amps	kVA	
EN116B	120	50/60	0–140	8	1.1	$117.00
EN117B	120	60	0–120	10*	1.7*	123.00
EN216B	240	50/60	0–280	3	0.84	135.00
EN217B	240	60	0–240	4.4*	1.4*	137.00

*Current is maximum for constant-current load; kVA is maximum for constant-impedance load. †For single phase service.

•AVAILABLE OFF-THE-SHELF FROM STOCK

STABILINE® AUTOMATIC VOLTAGE REGULATORS

Type EMT4106C


Type EMT4115B

Types IES9103B
and IES9203B

ELECTRO-MECHANICAL TRANSISTORIZED SERIES

Type EMT: Utilize transistorized control circuits, motor-driven Powerstat® variable transformers and buck-boost transformers to regulate line voltage. Widely used in industrial applications or where constant output voltage is required with zero waveform distortion. EMT Series types are offered in ratings from 2.3 to 118 kVA. For heavier load requirements, models of the EMS Series (not listed) are offered in ratings from 25 to 275 kVA. **Type EMK:** Stabiline automatic voltage regulators offer an extremely fast correction rate. Rugged construction assures dependable performance with little or no maintenance. Efficiency, approx. 99%; rated accuracy, ±0.75% for all variations of line voltage or lead current within the stated range of the unit.

INSTANTANEOUS ELECTRONIC SOLID STATE SERIES

Highly accurate, fast-correcting units feature solid state circuitry which permits smaller and lighter units than comparable tube-type regulators. Other benefits include low distortion, high efficiency (up to 95%) and wide operating frequency range. Speed of correction can be considered instantaneous for most applications. Will maintain output voltage within 100 mV rms band for any combination of rated input voltage and/or load from 1.0 to 0 power factor lagging. With the exception of types IES9110, IES9115, IES9210 and IES9215, all models can be rack mounted by removing the cabinet feet.

Superior Number	Nom'l Output Voltage	AC Hz	Input Voltage Range*	Output Voltage Range	Max. Output Amps	Rated Output kVA	Correction Rate: Sec./Volt†	Approx. Wt., Pounds		Superior Number	Net Each
								Net	Shpg.		
•EMT4102B‡■	115	50/60	95–135	110–120	20	2.3	.075	54	63	EMT4102B‡■	$1217.00
•EMT4106C■	115	50/60	95–135	110–120	57	6.6	.075	87	95	EMT4106C■	1450.00
•EMT4112B§■	115	50/60	105–125	110–120	114	13.0	.15	90	98	EMT4112B§■	1492.00
•EMT4115C	115	50/60	95–135	110–120	144	16.6	.125	258	280	EMT4115B	1890.00
EMT4104B#*	120	60	108–137	110–120	35	4.2	.10	47	52	EMT4104B#*	1679.00
•EMT4207C▲▲	230	50/60	195–255	220–240	36	8.3	.083	153	175	EMT4207C##	1710.00
•EMT4228D▲	230	50/60	205–250	220–240	130	29.9	.111	253	275	EMT4228C▲	2226.00
EMT4407C*	460	50/60	400–520	440–480	20	9.2	.041	165	187	EMT4407B*	2318.00
EMT4418C*	460	50/60	400–520	440–480	45	20.7	.041	263	285	EMT4418B*	2589.00
EMT6210YB▲▲◆*	230	50/60	195–255	220–240	33	13.1	.083	372	453	EMT6210YB▲▲◆*	3351.00
EMT6215YB▲▲◆*	230	50/60	195–255	220–240	48	19.1	.083	374	455	EMT6215YB▲▲◆*	3474.00
•EMT6220YB▲▲◆	230	50/60	195–255	220–240	63	25.1	.083	378	457	EMT6220YB▲▲◆	3501.00
•EMT6245YB▲▲◆	230	50/60	195–255	220–240	145	57.8	.25	835	969	EMT6245YB▲▲◆	4680.00
EMT6270DB▲▲◆*	230	50/60	195–255	220–240	188	74.9	.25	795	939	EMT6270DB▲▲◆*	6480.00
EMT6412YB◆*	460	50/60	400–520	440–480	18	14.3	.041	350	430	EMT6412YB◆*	3676.00
EMT6417YB◆*	460	50/60	400–520	440–480	24	19.1	.041	370	450	EMT6417YB◆*	3946.00
•EMT6425YB◆	460	50/60	400–520	440–480	35	27.9	.041	390	470	EMT6425YB◆	3523.00
EMT6450YB◆*	460	50/60	400–520	440–480	75	59.8	.125	771	905	EMT6450YB◆*	5672.00
EMT6475YB◆	460	50/60	400–520	440–480	100	75	.125	820	954	EMT6475YB◆	5870.00
•EMT64100YB◆	460	50/60	420–500	440–480	148	118	.188	841	975	EMT64100YB◆	6009.00
EMK4105■▲▲*	115	50/60	105–125	110–120	46	5.3	.04	69	79	EMK4105■▲▲*	1715.00
IES91005B	115	50/60	95–135	110–120	4.4	0.5	....	53	57	IES91005B	1094.00
•IES9101B	115	50/60	95–135	110–120	8.7	1.0	....	68	72	IES9101B	1167.00
•IES9103B	115	50/60	95–135	110–120	26.1	3.0	....	131	136	IES9103B	1798.00
•IES9106B	115	50/60	95–135	110–120	52.2	6.0	....	167	181	IES9106B	2069.00
IES9110C*	115	50/60	95–135	110–120	87.0	10.0	....	360	380	IES9110C*	3756.00
•IES9115C	115	50/60	95–135	110–120	130	15.0	....	360	382	IES9115C	3961.00
IES9203B*	230	50/60	195–255	220–240	13	3.0	....	120	126	IES9203B*	2189.00
•IES9206B	230	50/60	195–255	220–240	26.1	6.0	....	139	153	IES9206B	2288.00
IES9210C*	230	50/60	195–255	220–240	43.5	10.0	....	330	350	IES9210C*	4082.00
IES9215C	230	50/60	195–255	220–240	65	15.0	....	350	372	IES9215C	4419.00

*At nominal output voltage; input voltage range shifts proportionally with output voltage setting. †Motor drive travel time in seconds divided by input range in volts. ‡Can also be operated with an input range of 105–125 volts, output rating of 40 amps, 4.6 kVA and correction rate of .15 sec/V. §Can also be operated with an input range of 95–135 volts, output rating of 57 amps, 6.6 kVA and correction rate of .075 sec/V. #60 Hz only. ##Can also be operated with a nominal 208 volt output, input range of 177–230 volts and output range of 200–216 volts. ▲Can also be operated with a nominal 208 volt output, input range of 186–226 volts and output range of 200–216 volts. ■Also available as rack models (add suffix **R**); prices on request. ◆Three-phase types; all others single-phase. ▲▲Can also be operated on an input range of 95–135 volts with rating of 23 amps, 2.6 kVA and correction of .02 sec/V. *Units subject to setup charges.

SUPERIOR ELECTRIC VOLTAGE CONTROL EQUIPMENT

STABILINE FULL-RANGE REGULATOR CONTROLLER

Designed for use with motor-driven Powerstat® variable transformers to maintain constant output voltage. Adjustable to any value within the full range of the Powerstat used. Regulates output from any motor-driven Powerstat rated 120 or 240 volts, 50/60 Hz, single-phase. Dependent on Powerstat used, unit may be used for 3-phase applications maintaining one line-to-neutral or one line-to-line voltage. Can also be used in 480 volts, 50/60 Hz, 3-phase, but an auxillary step-down transformer is required for sensing line-to-line voltage. Voltage output remains within 4-volt band when used with 240 V types. Voltmeter on front panel monitors Powerstat output in 0–300 volt range. Other controls include voltage adjust, on-off switch, pilot indicating when unit is energized, motor damping control and three fuses. Size: 11" h. × 6" w. × 7" d., overall. Mtg. centers 4½" × 10¼" maximum.

•Superior Type FR501B Regulator Controller—Net Each **$545.00**

•AVAILABLE OFF-THE-SHELF FROM STOCK

Superior Electric Voltage Regulators

STABILINE® AUTOMATIC VOLTAGE CONTROLS

All STABILINE voltage controls listed are recognized under the Components Program of Underwriters Laboratories, Inc.

CR SERIES COMPUTER REGULATORS

Units maintain properly conditioned voltage to computers and other voltage-critical equipment. Simple plug and cord connection to voltage source; two grounded receptacles for connecting equipment. Provide output of 120 volts, rms, ±3%, 60 Hz, over an input range of 95 to 130 volts, rms. Also provide 60 dB common-mode noise rejection to help prevent computer errors, loss of information and other noise-related problems.

SVR SERIES AUTOMATIC VOLTAGE REGULATORS

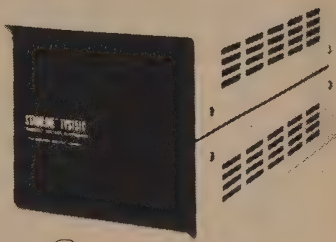
Highly efficient, extremely fast, solid-state regulators designed for a variety of voltage control applications. They are very light in weight when compared with many other units of similar kVA ratings. Provide accuracy of ±3.5% for all line, load and power factor variations. Have virtually zero waveform distortion. Other series in the complete line include EMT and EMS (Electromechanical Solid-State), EMK (Electromechanical) and IES (Instantaneous Electronic Solid-State) with ratings to 300 kVA.

SVRS SERIES TRANSIENT SUPPRESSORS/VOLTAGE REGULATORS

In addition to correcting for high or low voltage from power sources, SVRS Series units attenuate transverse-mode (line-to-line) noise and transients. Transient voltage attenuation of 40 dB from 5 to 50 kHz. Provide the all-around protection needed by computers, business machines, word processors, micro-processor-based equipment and other voltage sensing devices to reduce or eliminate disruptions, data errors, loss of information and equipment failure. For 50/60 Hz duty.

Superior Number	† Fig.	Nominal Output Volts	Input Voltage Range	Max. Output Amps	Rated Output kVA	Weight Lbs.	Net Each
CR COMPUTER REGULATORS							
CR7105PCU	A	120	95–130	4.17	0.5	39	$369.00
CR7110PCU	A	120	95–130	8.33	1.0	60	548.00
CR7120PCU	A	120	95–130	16.67	2.0	110	934.00
SVR AUTOMATIC VOLTAGE REGULATORS							
SVR8101CU	B	115	100–135	8.7	1.0	28	$ 697.00
SVR8102CU	B	115	100–135	17.4	2.0	40	995.00
SVR8104CU	B	115	100–135	34.8	4.0	45	1345.00
SVR8201CU	B	220	192–255	4.5	1.0	28	790.00
SVR8202CU	B	220	192–255	9.1	2.0	40	1083.00
SVR8204CU	B	220	192–255	18.2	4.0	49	1414.00
SVRS TRANSIENT SUPPRESSORS/VOLTAGE REGULATORS							
SVRS88101CU	B	115	100–135	8.7	1.0	36	$ 732.00
SVRS88102CU	B	115	100–135	17.4	2.0	50	1045.00
SVRS88104CU	B	115	100–135	34.8	4.0	52	1412.00
SVRS88201CU	B	220	192–255	4.5	1.0	41	830.00
SVRS88202CU	B	220	192–255	9.1	2.0	48	1137.00
SVRS88204CU	B	220	192–255	18.3	4.0	56	1485.00

A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TVS SERIES TRANSIENT VOLTAGE SUPPRESSORS

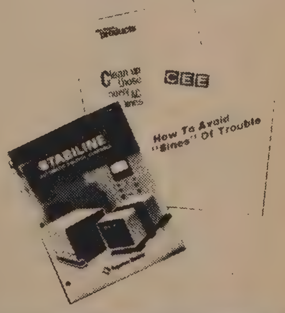
Attenuate transverse-mode (line-to-line) noise or transients. Attenuate consistently regardless of position on sine wave or direction the transient is applied. Do not rely on absolute magnitude before attenuation occurs. Response time is virtually instantaneous and transient reduction is 40 dB (100 to 1) from 5 to 50 kHz. For 50/60 Hz duty.

IT SERIES ISOLATION TRANSFORMERS

Multishielded isolation transformers exhibiting low capacitance between primary and secondary windings. Effective for isolating sensitive equipment and attenuating common-mode noise generated by power consuming devices. Interwinding capacitance is 0.005 pF and common-noise attenuation is 126 dB. For 50/60 Hz duty.

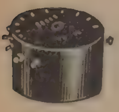
Superior Number	† Fig.	Line Volts	Output Volts	Output Amps	Weight Lbs.	Net Each
TVS TRANSIENT VOLTAGE SUPPRESSORS						
TVS151CU	B	120	120	15	11	$236.00
TVS151PCU	B	120	120	15	11	264.00
TVS301CU	B	120	120	30	13	363.00
TVS601CU	B	120	120	60	24	653.00
TVS152CU	B	240	240	15	11	319.00
TVS302CU	B	240	240	30	13	476.00
TVS602CU	B	240	240	60	24	733.00
IT ISOLATION TRANSFORMERS						
IT105	C	120	120	4.17	23	$267.00
	C	240	240	2.08		
IT110	C	120	120	8.35	40	421.00
	C	240	240	4.17		
IT125	C	120	120	20.85	61	489.00
	C	240	240	10.43		
IT150	C	120	120	41.70	100	560.00
	C	240	240	20.85		

†Figures are approximate; call for details.



For full information about the complete line of STABILINE Automatic Voltage Controls in ratings from ½ to 300 kVA, contact your nearest sales office.

Power Transformers and Chokes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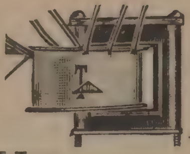
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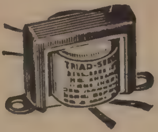
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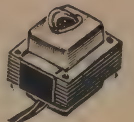
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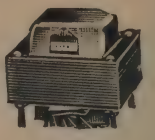
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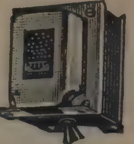
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TOROIDAL TRANSISTOR POWER SUPPLY TRANSFORMERS

Epoxy molded, DC to DC. Exceed MIL-T-27B Grade 5, Class R specs. Case type EE except open types case S.

Triad No.	Input Volts	Output V*	Output mA	Size, Inches Dia.	Size, Inches Height	Wt., Lbs.	Net Each
TY-68S†	12	250	65	§	1¾	.2	**$15.93**
TY-69S†	12	300	10C	#	1⅞	.5	**16.97**
TY-71S†	12	375	200	•	2	.65	**16.78**
TY-74S†	12	600	200	‡	2	1.07	**24.07**
TY-77S†	12	670	180	‡	2	1.07	**28.19**
TY-78	12.6	250	100	1¾	11/16	.35	**37.84**
TY-79	12.6	300	200	1¾	1	.35	**41.53**
TY-81	12.6	375	200	2	1	.50	**39.97**
TY-82	12.6	450	150	2	1	.50	**41.34**
TY-83	12.6	500	250	2¾	1⅜	.85	**50.22**
TY-84	12.6	600	200	2¾	1⅜	1.00	**49.69**
TY-85	12.6	600	350	2⅞	1⅞	2.00	**56.29**
TY-86	12.6	425	350	2¾	1⅜	1.00	**51.29**
TY-88	28	250	80	1 5/16	9/16	.25	**32.00**
TY-89	28	300	100	1¾	11/16	.35	**35.67**
TY-90	28	325	200	1¾	1	.35	**43.86**
TY-91	28	375	200	2	1	.50	**39.28**
TY-92	28	450	200	2	1	.50	**42.67**
TY-93	28	500	250	2¾	1⅜	.85	**56.29**
TY-99	6	300	100	1¾	1	.35	**39.22**
TY-100	6	325	150	2	1	50	**38.10**

*F.W. bridge. †Open frame type. ‡4⅛" w. x 3" d. §1¾" w. x 1 11/32" d. #2⅜" w. x 1⅞" d. •2⅜" w. x 2 7/16" d.

DC TO AC TRANSISTOR TRANSFORMERS

Open and vertical shielded types. Secondary, 110–115–125 volts.

Triad No.	DC Pri.	Secondary W	Secondary Hz	Case	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each
TY-468	28	60	400	L	1⅞ x 2¼ x 2	½	**$29.14**
TY-462	12	60	400	L	1⅞ x 2¼ x 2	½	**33.00**
TY-75A	12	115	60	A	3⅞ x 3 9/32 x 3½	5	**41.79**
TY-76A	12	60	60	A	3 3/16 x 2 21/32 x 2⅝	3	**27.28**

STEP-DOWN AUTOFORMERS—50-60 Hz

Triad No.	VA Output	Input Volts	Output Volts	Size, Inches H. x W. x D.	Net Each
N-1X	50	230	115	2 9/32 x 3 11/16 x 2	**$ 9.90**
N-3M§	85	230	115	3 19/32 x 2 31/32 x 2⅞	**21.64**
N-4M§	150	230	115	3 19/32 x 2 31/32 x 3⅝	**24.31**
N-5M§	250	230	115	3⅞ x 3 9/32 x 4¼	**34.66**
N-7M§	600	230	115	4⅝ x 3 15/16 x 5	**60.50**
N-9M§	1250	230	115	5 5/16 x 4½ x 6¼	**139.48**
N-11M§	2000	230	115	5 5/16 x 4½ x 8	**161.41**
N-34X	150	0/95/105/115/125/135	115	2 19/32 x 4 x 2¼	**14.98**
N-33MG*	150	65/75/90 100/115 130/145	115	5 5/16 x 3 15/16 x 5½	**71.81**
N-36MG*	350	65/75/90 100/115 130/145	115	5 5/16 x 3 15/16 x 6¼	**104.14**
N-37MG*	500	65/75/90 100/115 130/145	115	5 5/16 x 3 15/16 x 7	**132.55**

§Also available with 3-wire cord, plug and socket (MG). *Has 3-wire cord, plug, switch, socket, and meter.

STEP-UP AUTOFORMERS—50-60 Hz

With 3-wire cord, plug, and socket.

N150MG	150	115	230	3 19/32 x 2 31/32 x 4	**$ 88.53**
N250MG	250	115	230	3⅞ x 3¼ x 4 9/16	**89.88**
N500MG	500	115	230	4⅝ x 3⅞ x 4¾	**96.16**
N1000MG	1000	115	230	5⅜ x 4½ x 5½	**109.60**

DC TO DC CONVERTER TRANSFORMERS

For use in blocking oscillator type power supplies where small size, high voltage and low power are required.

Triad No.	Typical Operation Input	Typical Operation Output	Net Each
TY-200X	3 VDC at 20 mA	1050 VDC at 25 μA	**$19.10**
TY-201TZ	4 VDC at 15 mA	500 VDC at 50 μA	**13.33**
TY-202X	4 VDC at 45 mA	550 VDC at 80 μA	**14.84**

VOLTAGE STABILIZERS

Input: 95–130 v. 60 Hz. Output: 118 v, 20% normal harmonic.

Triad No. K-100A—30 VA. Net Each	**$ 96.09**
Triad No. K-101A—60 VA. Net Each	**122.83**
Triad No. K-102—120 VA. Net Each	**181.72**
Triad No. K-103A—250 VA. Net Each	**217.81**
Triad No. K-104A—500 VA. Net Each	**273.76**
Triad No. K-105A—750 VA. Net Each	**335.93**
Triad No. K-106A—1000 VA. Net Each	**429.50**

ADAPTER KITS

Triad No. KA-1—Used with K-100A and K-101A. Net Each	**$22.26**
Triad No. KA-2—Used with K-102. Net Each	**23.26**
Triad No. KA-3—Used with K-103A, K-104A, K-105A and K-106A. Net Each	**22.90**

SPECIAL POWER TRANSFORMERS

Multiple filament industrial and TV replacement type. Static shield. Pri. 115 V, 50–60 Hz except R-67BC thru R-675A, 60 Hz.

Triad No.	Plate Supply AC Volts	Plate Supply mA DC	Filaments Volts-Amps	Size, Inches H. x W. x D.	Net Each
R-52BC	600 CT	270	5-3A., 6.3-5A., 6.3-5A., 6.3-1.2A.	3⅛x4½ x3¾	**$46.64**
R-67BC	600 CT	250	5-3A., 6.3-9A.	3⅛x4⅛ x3 7/16	**48.31**
R-77BS	550 CT	350	5CT-6A.,6.3-8A., 6.3-6A., 6.3-2A.	3⅞x4½ x3¾	**62.22**
R-78BC	700 CT	200	5-3A., 6.3-6A., 6.3-4A., 6.3-2A.*	2⅝x4½ x3¾	**29.38**
R-675A	660 CT	270	5-6A., 6.3-9.35A., 6.3-1.2A.*	4⅝x3 15/16x4¾	**54.67**

*Damper wdg.

SMOOTHING FILTER REACTORS

Triad No.	Induct., Henries*	Current mADC	Resist., Ohms	Size, Inches H. x W. x D.	Net Each
C-85X	1.5	10	70	1¼ x2⅛ x1⅛	**$ 5.45**
C-30X	50	15	3500	1⅜ x2⅜ x1½	**6.40**
C-2X	2	15	70	1 3/16 x2 1/16 x1¼	**4.69**
C-1X	15	20	1000	1 3/16 x2 1/16 x1¼	**5.34**
C-84X	12	30	400	1⅜ x2⅜ x1⅜	**6.45**
C-3X	10	50	500	1⅝ x2 13/16x1½	**6.00**
C-4X	4	50	360	1⅜ x2⅜ x1⅜	**5.05**
C-6X	5	65	330	1⅝ x2 13/16x1½	**5.95**
C-5X	12	75	390	1 15/16x3 5/16 x1¾	**7.17**
C-8X	7	75	240	1 15/16x3 5/16 x1¾	**6.60**
C-7X	10	90	270	1 15/16x3 5/16 x2	**7.60**
C-9X	4	90	100	1 15/16x3 5/16 x1¾	**6.90**
C-11X	6	110	160	2 9/32 x3 11/16x2	**8.67**
C-10X	9	125	250	2 9/32 x3 11/16x2	**8.78**
C-12X	6	160	165	2 9/32 x3 11/16x2⅛	**9.00**
C-12A	6	160	165	2 25/32x2 11/32x2½	**14.17**
C-13X	3	160	75	2 9/32 x3 11/16x2⅛	**8.83**
C-14X	6	200	150	2 19/32x4 x2¼	**10.72**
C-14A	6	200	150	3 3/16 x2 21/32x2⅝	**16.00**
C-16A	10	200	150	3½ x2 31/32x3½	**20.60**
C-21X	1.5	225	65	1 15/16x3 5/16 x1¾	**7.05**
C-15X	4	250	100	2 19/32x4 x2¼	**10.40**
C-15A	4	250	100	3 3/16 x2 21/32x2⅝	**15.72**
C-23X	1.2	260	45	1 15/16x3 5/16 x2	**8.33**
C-24X	1	240	50	1⅝ x2 13/16x1½	**5.64**
C-27X	.7	290	30	1⅝ x2 13/16x1½	**5.41**
C-36X	.5	300	30	1⅜ x2⅜ x1½	**5.17**
C-17X	1.5	300	40	2 9/32 x3 11/16x2	**8.12**
C-18A	8	300	90	3⅞ x3 9/32 x3⅞	**25.71**
C-19A	10	300	105	4¼ x3 19/32x4⅛	**33.12**
C-34X	.6	350	35	1⅝ x2 13/16x1½	**5.59**
C-28X	1	350	35	1 15/16x3 5/16 x2	**7.19**
C-29X	1.5	375	50	2 9/32 x3 11/16x2	**8.14**
C-20A	6	400	60	4⅝ x3 15/16x4½	**37.52**
C-45AL	10	500	65	5 5/16 x4½ x5⅛	**69.74**
C-40X	.32	600	10	1 15/16x3 5/16 x2	**7.10**
C-47U	.3/.075†	1A/2A	3/0.75	3½ x2⅞ x3 3/16	**21.40**
C-56U	.035	2A	.75	2¼ x2⅝ x2	**12.22**
C-48U	.08/.02†	2.5A/5A	.61/.155	3 13/16x3 3/16 x3 9/16	**25.29**
C-57U	.025	4A	.55	3⅛ x3⅜ x2¼	**16.88**
C-49U	.032/.008†	5A/10A	.19/.05	4¼ x3½ x3⅝	**41.09**
C-58U	.01	8A	.15	3⅛ x3¾ x3⅛	**24.97**
C-59U	.01	12.5A	.10	3½ x4⅛ x3	**29.26**
C-80U	.024/.006†	20A/40A	.1/.025	5 5/16 x4 9/16 x5½	**112.55**
C-60U	.005	22.5A	.06	3¾ x4½ x4 3/16	**52.14**

*Inductance tolerance, −20% +50%. †Split winding.

Power Transformers

POWER SUPPLY, CONTROL AND FILAMENT TRANSFORMERS

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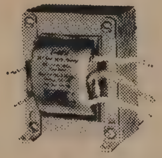
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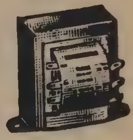
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SINGLE SECONDARY
PRIMARY 115 VOLTS—50-60 Hz.

Triad No.	Secondary		Test Volts	Case Size, Ins. H. x W. x D.	Wt. Lbs.	Net Each
	Volts	Amps				
F-50X‡#	6.3/5	2	5000	1 15/16 x 3 5/16 x 2	1.2	$14.24
F-1X#	2.5 CT	3	1500	1 5/8 x 2 13/16 x 1 5/8	.68	7.79
F-72Z#	2.5 CT	5	7500	2 23/32 x 3 1/8 x 2 1/8	1.7	15.14
F-6X#	2.5 CT	6	2500	1 15/16 x 3 5/16 x 1 3/4	1	8.90
F-3X#	2.5 CT	10	3000	2 9/32 x 3 3/4 x 2 1/8	1.7	13.05
F-5U	2.5 CT	10	7500	3 1/16 x 2 1/2 x 2 7/16	2.2	16.55
F-7X	5 CT	3	1500	1 15/16 x 3 5/16 x 2	1.3	9.76
F-8X	5 CT	6	1500	2 9/32 x 3 3/4 x 2 1/8	1.7	12.31
F-12X	5 CT	8	2500	2 19/32 x 4 x 2 1/4	2.5	14.90
F-10U#	5 CT	14	10000	3 13/16 x 3 3/16 x 3 1/4	4.75	26.81
F-15U#	5 CT	15	3000	3 1/2 x 2 7/8 x 2 11/16	3.25	22.91
F-9U	5.2 CT	13	1500	3 7/16 x 2 13/16 x 3 1/4	4	24.34
F-11U	5.2 CT	24	1500	3 13/16 x 3 3/16 x 3 7/8	6.75	29.55
F-13X	6.3	.6	1500	1 3/8 x 2 3/8 x 1 3/8	.37	5.59
R-84K†	6.3	.6	3500	2 3/4 x 2 1/4 x 2 11/16	1.5	15.64
F-14X#	6.3 CT	1.2	2500	1 5/8 x 2 13/16 x 1 5/8	.7	6.64
F-14Z	6.3 CT	1.2	2500	1 15/16 x 2 3/8 x 1 5/8	.7	7.52
F-52X†	6.3	1.2	5000	1 15/16 x 3 5/16 x 1 3/4	1	10.72
F-51X#†	6.3/5	2	5000	1 15/16 x 3 5/16 x 2	1.25	11.90
F-53X	6.3	4	5000	2 19/32 x 4 x 2 1/4	2.1	12.64
F-43X#	6.3	4	1500	1 15/16 x 3 5/16 x 2	1.25	8.12
F-16X	6.3 CT	3	2500	1 15/16 x 3 5/16 x 2	1.3	9.83
F-18X	6.3 CT	6	1500	2 19/32 x 4 x 2 1/4	2.3	12.43
F-18A	6.3 CT	6	1500	3 3/16 x 2 21/32 x 2 5/8	2.5	16.21
F-69X	6.3 CT	8	1500	2 9/16 x 4 x 2 1/4	2.3	15.60
F-21A	6.3 CT	10	1500	3 19/32 x 2 31/32 x 3 1/8	3.8	24.97
F-20U*	6.3/6 CT	11	3000	3 1/2 x 2 7/8 x 3	4	25.21
F-17U#	6.3 CT	15	10000	4 1/4 x 3 1/2 x 3 3/4	7.5	34.86
F-22A	6.3 CT	20	2000	3 7/8 x 3 9/32 x 4 1/8	7	34.43
F-24U*	7.5/6.3 CT	8	3000	3 1/2 x 2 7/8 x 2 13/16	3.65	21.55
F-28U*	7.5/ 6.3 CT	25	3000	4 5/8 x 3 13/16 x 3 5/8	7.5	47.38
F-180X	10 CT	1	1500	1 15/16 x 3 5/16 x 1 3/4	.9	10.52
F-31X	10 CT	3	2000	2 9/32 x 3 3/4 x 2 1/8	1.7	11.57
F-95X	10 CT	4	1500	2 5/8 x 4 x 2 1/8	2.1	15.47
F-33U	10 CT	5	2000	3 x 2 1/2 x 2 5/8	3	18.28
F-96U	10 CT	6	1500	3 x 2 1/2 x 2 3/4	2.1	17.53
F-23U	10 CT	7	1500	3 1/2 x 2 7/8 x 2 15/16	3.9	22.41
F-97U	10 CT	8	1500	3 7/16 x 2 13/16 x 3	4.0	22.33
F-35U	10 CT	10	2000	4 1/8 x 4 1/2 x 3 1/4	9.1	30.53
F-113X	12	.15	1500	1 3/8 x 2 3/8 x 1 3/8	.4	6.26
F-216X#	12	.35	1500	1 3/8 x 2 3/8 x 1 3/8	.37	8.67
F-114X	12	.7	1500	1 5/8 x 2 13/16 x 1 5/8	.8	9.38
F-217X#	12	1.2	1500	2 x 3 1/4 x 1 3/4	1.0	10.38
F-218X#	12	2	1500	2 x 3 1/4 x 1 7/8	1.13	9.24
F-219X#	12	4	1500	2 9/16 x 4 x 2 1/4	2.3	13.59
F-220U#	12	6	1500	3 7/16 x 2 13/16 x 2 1/2	3.5	10.21
F-221U#	12	8	1500	3 13/16 x 3 1/8 x 2 3/8	4.0	21.19
F-29U*	12 CT/ 11 CT/ 10 CT	11	3000	4 3/8 x 3 1/2 x 3 3/8	6.5	33.24
F-70X	12.6 CT	1	1500	1 15/16 x 3 5/16 x 1 3/4	1.3	9.16
F-25X	12.6 CT	1.5	1500	1 15/16 x 3 5/16 x 2	1.3	7.95
F-44X#	12.6 CT	2	1500	1 15/16 x 3 5/16 x 2	1.25	8.84
F-26X#	12.6 CT	2.5	1500	2 9/32 x 3 11/16 x 2	1.55	9.19
F-224X#	12.6	3	1500	2 1/4 x 3 3/4 x 2 1/8	1.6	12.12
F-225X#	12.6	4	1500	2 5/8 x 4 x 2 1/16	2.3	13.59
F-181U	12.6 CT	4	1500	3 1/16 x 2 9/16 x 2 3/16	2.3	17.66
F-182U	12.6 CT	6	1500	3 3/8 x 2 13/16 x 2 7/16	3.8	21.17
F-183U	12.6 CT	8	1500	3 13/16 x 3 3/16 x 2 15/16	5	24.97
F-112X	14 CT	.25	1500	1 3/8 x 2 3/8 x 1 3/8	.4	7.36
F-250X	14 CT	1	1500	1 15/16 x 3 1/4 x 1 3/4	1.2	9.81
F-251X	14 CT	2	1500	2 1/4 x 3 11/16 x 1 15/16	1.5	10.72
F-252U	14 CT	4	1500	3 x 2 1/2 x 2 7/16	3	16.21
F-253U	14 CT	6	1500	3 3/8 x 2 13/16 x 2 7/8	4	19.09
F-254X	20 CT	1	1500	2 1/4 x 3 11/16 x 1 15/16	1.5	10.91
F-255X	20 CT	2	1500	2 9/16 x 4 x 2 1/4	2.5	21.26
F-256U	20 CT	4	1500	3 3/8 x 2 13/16 x 2 7/8	4	19.88
F-257U	20 CT	6	1500	3 3/4 x 3 1/8 x 3 1/8	5.7	24.34
F-258U	20 CT	8	1500	3 3/4 x 3 1/8 x 3 1/2	6.4	28.60
F-259U	20 CT	10	1500	4 1/8 x 3 7/16 x 3 1/2	7.4	32.76
F-115X	24 CT	.085	1500	1 3/16 x 2 1/16 x 1 3/8	.3	7.66
F-116X	24 CT	.2	1500	1 3/8 x 2 3/8 x 1 1/2	.45	8.45
F-117X	24 CT	.4	1500	1 5/8 x 2 13/16 x 1 5/8	.8	8.17
F-118X	24 CT	.7	1500	1 15/16 x 3 1/4 x 2	1.3	8.21
F-45X#	24 CT	1	1500	1 15/16 x 3 5/16 x 2	1.3	8.50
F-46X#	24	1	1500	1 15/16 x 3 1/4 x 2 1/8	1.4	8.50
F-192X	24 CT	2	1500	2 9/16 x 4 x 2 1/4	2.3	12.93
F-193U	24 CT	4	1500	3 13/16 x 3 1/8 x 2 13/16	4	20.91
F-260U	24 CT	6	1500	3 3/4 x 3 1/8 x 3 1/2	6.4	28.66
F-261U	24 CT	8	1500	4 1/8 x 3 7/16 x 3 1/2	7.4	32.93
F-401U	24 CT	10	1500	4 1/8 x 3 7/16 x 3 3/4	8.0	40.24
F-226U	24 CT	12	1500	4 9/16 x 3 3/4 x 4 1/8	10.4	43.79
F-57X	25.2 CT	1	1500	1 15/16 x 3 5/16 x 2	1.5	8.62
F-41X#	25.2 CT	2	1500	2 19/32 x 4 x 2 1/4	2.2	11.78
F-56X	25.2 CT	2.8	1500	2 21/32 x 4 x 2 1/4	2.5	14.57
F-119X	26.8 CT	.15	1500	1 3/8 x 2 3/8 x 1 1/2	.45	9.84
F-120X	26.8 CT	.5	1500	1 15/16 x 3 1/4 x 2	1.3	9.07
F-40X#	26.8 CT	1	1500	1 15/16 x 3 5/16 x 2	1.3	8.10
F-55X	26.8 CT	1.7	1500	2 19/32 x 4 x 2 1/4	2.3	12.22
F-121X	28 CT	0.085	1500	1 3/16 x 2 1/16 x 1 3/8	.25	9.24
F-122X	28 CT	0.175	1500	1 3/8 x 2 3/8 x 1 1/2	.35	7.38
F-123X	28 CT	0.300	1500	1 5/8 x 2 13/16 x 1 5/8	.6	$11.03
F-124X	28 CT	0.800	1500	1 15/16 x 3 1/4 x 2	1.0	9.43
F-184X	28 CT	1	1500	2 5/16 x 3 11/16 x 2 1/4	1.4	11.33
F-185U	28 CT	2	1500	3 1/16 x 2 1/2 x 2 7/16	2.9	16.21
F-187U	28 CT	4	1500	3 1/2 x 2 7/8 x 3 1/16	5.3	22.26
F-262X	30 CT	1	1500	2 1/4 x 3 11/16 x 1 15/16	1.5	10.62
F-210X	30 CT	1.7	1500	2 19/32 x 4 x 2 1/4	1.55	12.76
F-263U	30 CT	2	1500	3 x 2 1/2 x 2 9/16	3.2	16.38
F-264U	30 CT	4	1500	3 3/4 x 3 1/8 x 3 1/8	5.7	24.17
F-265U	30 CT	6	1500	4 1/8 x 3 7/16 x 3 1/2	7.4	30.05
F-266U	30 CT	8	1500	4 1/2 x 3 3/4 x 4	10	41.71
F-227X#	35 CT	.065	1500	1 3/16 x 2 1/16 x 1 5/16	.3	9.48
F-188X	35 CT	.1	1500	1 5/8 x 2 13/16 x 1 7/16	.35	8.34
F-228X#	35 CT	.3	1500	1 5/8 x 2 13/16 x 1 5/8	.6	10.47
F-189X	35 CT	.5	1500	2 5/16 x 3 11/16 x 1 15/16	1	11.16
F-54X	35 CT	1.5	1500	2 19/32 x 4 x 2 1/4	2.2	13.14
F-190U	35 CT	2	1500	3 3/8 x 2 13/16 x 2 3/4	3.5	18.67
F-191U	35 CT	4	1500	3 13/16 x 3 3/16 x 3 3/16	6	25.16
F-267U	35 CT	6	1500	4 1/8 x 3 7/16 x 3 1/2	7.4	31.36
F-268U	35 CT	8	1500	4 1/2 x 3 3/4 x 4 1/4	11	43.10
F-269U	35 CT	10	1500	5 1/4 x 4 3/8 x 4 1/8	12	50.86
F-270X	40 CT	1	1500	2 9/16 x 4 x 2 1/4	2.6	12.76
F-271U	40 CT	2	1500	3 3/8 x 2 13/16 x 2 7/8	4	17.98
F-272U	40 CT	4	1500	3 3/4 x 3 1/8 x 3 1/2	6.4	25.62
F-273U	40 CT	6	1500	4 1/2 x 3 3/4 x 4	10	38.17
F-274U	40 CT	8	1500	4 1/2 x 3 3/4 x 4 1/4	10.5	49.34
F-275U	40 CT	10	1500	5 1/4 x 4 3/8 x 4 1/2	14.5	57.84
F-276X	50 CT	1	1500	2 9/16 x 4 x 2 1/4	2.4	12.43
F-277U	50 CT	2	1500	3 3/4 x 3 1/8 x 2 7/8	4.7	21.22
F-278U	50 CT	4	1500	4 1/8 x 3 7/16 x 3 1/2	7.4	29.79
F-58A	50 CT	5	1500	4 5/8 x 3 15/16 x 4 1/2	10	45.00
F-59X	60 CT	.4	1500	1 15/16 x 3 5/16 x 2	1.3	9.45
F-279U	60 CT	1	1500	3 x 2 1/2 x 2 5/8	3.4	16.21
F-280U	60 CT	2	1500	3 3/4 x 3 1/8 x 3 1/8	5.6	23.03
F-281U	60 CT	4	1500	4 1/2 x 3 3/4 x 4	10	37.34
F-282U	60 CT	6	1500	5 1/4 x 4 3/8 x 4 1/8	12.5	49.83
F-283U	70 CT	1	1500	3 3/8 x 2 13/16 x 2 5/8	4	17.69
F-284U	70 CT	2	1500	3 3/4 x 3 1/8 x 3 1/2	6	25.29

PRIMARY 115/230 VOLTS—50/60 Hz

Triad No.	Volts	Amps	Test Volts	Case Size, Ins. H. x W. x D.	Wt. Lbs.	Net Each
F-301X	2.5 CT	3	1500	1 5/8 x 2 13/16 x 1 5/8	.68	$ 9.76
F-306X	2.5 CT	6	2500	1 15/16 x 3 5/16 x 1 3/4	1	12.43
F-313X	6.3	.6	1500	1 3/8 x 2 3/8 x 1 3/8	.37	9.84
F-314X	6.3 CT	1.2	2500	1 5/8 x 2 13/16 x 1 5/8	.7	9.48
F-316X	6.3 CT	3	2500	1 15/16 x 3 5/16 x 2	1.3	11.62
F-318X	6.3 CT	6	1500	2 19/32 x 4 x 2 1/4	2.3	17.40
F-325X	12.6 CT	1.5	1500	1 15/16 x 3 5/16 x 2	1.3	10.38
F-344X	12.6 CT	2	1500	1 15/16 x 3 5/16 x 2	1.25	12.55
F-326X	12.6 CT	2.5	1500	2 9/32 x 3 11/16 x 2	1.55	12.78
F-3181U	12.6 CT	4	1500	3 1/16 x 2 9/16 x 2 3/16	2.3	20.53
F-3112X	14 CT	.25	1500	1 3/8 x 2 3/8 x 1 1/2	.3	11.98
F-3115X	24 CT	.085	1500	1 3/16 x 2 1/16 x 1 3/8	.3	12.12
F-3116X	24 CT	.2	1500	1 3/8 x 2 3/8 x 1 1/2	.45	9.28
F-3117X	24 CT	.4	1500	1 5/8 x 2 13/16 x 1 1/2	.75	10.52
F-3118X	24 CT	.7	1500	1 15/16 x 3 1/4 x 2	1.3	11.90
F-345X	24 CT	1	1500	1 15/16 x 3 5/16 x 2	1.3	10.02
F-346X	24	1	1500	1 15/16 x 3 1/4 x 2 1/8	1.4	11.16
F-357X	25.2 CT	1	1500	1 15/16 x 3 5/16 x 2	1.5	11.90
F-341X	25.2 CT	2	1500	2 19/32 x 4 x 2 1/4	2.2	16.41
F-340X	26.8 CT	1	1500	1 15/16 x 3 5/16 x 2	1.3	13.21
F-355X	26.8 CT	1.7	1500	2 19/32 x 4 x 2 1/4	2.3	14.09
F-3185U	28 CT	2	1500	3 1/16 x 2 1/2 x 2 7/16	2.9	21.76
F-354X	35 CT	1.5	1500	2 19/32 x 4 x 2 1/4	2.2	15.93

PRIMARY 440 VOLTS—50-60 Hz.

Triad No.	Volts	Amps	Test Volts	Case Size, Ins. H. x W. x D.	Wt. Lbs.	Net Each
F-246X#	24 CT	.5	1500	2 x 3 1/4 x 1 5/8	.8	$10.50
F-230X	24 CT	1	2000	2 1/4 x 3 11/16 x 1 15/16	1.7	10.83
F-231X	24 CT	2	2000	2 9/16 x 4 x 2 1/4	2.4	13.29
F-232U	24 CT	4	2000	3 3/4 x 3 1/8 x 2 7/8	4.6	20.60

*Tapped primary to produce lower voltages. †Static shield. #60 Hz. operation. ‡Filament line matching transformer; primary 6.3/5 volts.

Transformers

POWER SUPPLY, CONTROL AND FILAMENT TRANSFORMERS

Triad No.	Secondary Volts	Secondary Amps	Test Volts	Case Size, Ins. H. x W. x D.	Wt. Lbs.	Net Each
MULTIPLE SECONDARY PRIMARY 115 VOLTS—50-60 Hz.						
F-34A	6.3 CT† 6.3† 6.3† 6.3†	1.75 1.75 1.75 1.75	1500	3 3/16 x 2 11/32 x 3	3.3	$23.31
F-32A	6.3 CT† 6.3 CT†	3 3	1500	3 3/16 x 2 11/32 x 2⅝	2.5	18.84
F-36A	6.3 CT† 6.3† 6.3† 6.3†	3.5 3.5 3.5 3.5	1500	3⅞ x 3 9/32 x 3½	5	32.22
F-38A	6.3 CT† 6.3† 6.3 5 CT 5	5 5 1 2 4	1500	3⅞ x 3 9/32 x 3¾	6	37.03
F-234Z#	12 CT 12 CT	.1 .1	1500	1⅜ x 2 x 1 5/16	.3	15.97
F-235Z#	12 CT 12 CT	.25 .25	1500	2 x 2⅜ x 1 7/16	.6	15.22
F-236Z#	12 CT 12 CT	.5 .5	1500	2 5/16 x 2⅞ x 1⅝	.9	16.00
F-237Z#	12 CT 12 CT	1 1	1500	2⅜ x 2 13/16 x 2 1/16	1.1	14.09
F-238U#	12 CT 12 CT	2 2	1500	2½ x 3 x 2 3/16	2.2	18.48
F-239U#	12 CT 12 CT	4 4	1500	3⅛ x 3¾ x 2¾	4.25	29.55
F-240U#	12 CT 12 CT	6 6	1500	3½ x 4⅛ x 3 1/16	5.4	41.26
F-42A	12.6 CT† 12.6†	2.5 2.5	1500	3 19/32 x 2 21/32 x 3⅛	3.7	19.78
F-83A*#	12.6 CT† 12.6 CT†	5 5	2500	3⅞ x 3 9/32 x 3¾	6	35.05
F-295Z	15 12 12 CT	.1 .1 .1	1500	1¾ x 2 x 1½	.4	10.97
F-296Z#	15 12 12 CT	.15 .15 .15	1500	1 15/16 x 2⅜ x 1½	.6	14.78
F-297Z#	15 12 12 CT	.25 .25 .25	1500	1 15/16 x 2 7/16 x 1⅝	.7	12.66
F-298Z	15 12 12 CT	.5 .5 .5	1500	2¼ x 3¾ x 1⅞	1.25	13.17
F-299X	15 12 12 CT	1.5 1.5 1.5	1500	2 9/16 x 4 x 2¼	2.3	20.10
F-241U#	18 CT 18 CT	1 1	1500	2½ x 3 x 2½	2.2	21.38
F-242U#	18 CT 18 CT	2 2	1500	3⅛ x 3¾ x 2 11/16	4	26.81
F-243U#	18 CT 18 CT	4 4	1500	3½ x 4⅛ x 3¼	5.2	35.64
F-244U#	18 CT 18 CT	8 8	1500	3¾ x 4½ x 4	8.3	44.74
F-245U#	18 CT 18 CT	12 12	1500	4⅜ x 5 3/16 x 4¼	11.9	59.33
F-194X	32 CT 15.5 CT	.05 .2	1500	1⅝ x 2⅞ x 1⅜	.45	9.81
F-195X	32 CT 15.5 CT	.25 .75	1500	2¼ x 3¾ x 1⅞	1.3	12.64
F-196U	32 CT 15 CT	1 2	1500	3⅜ x 2 13/16 x 2⅝	4	19.95
F-197U	32 CT 15 CT	1 4	1500	3¾ x 3⅛ x 2 15/16	4.7	24.22
F-198U	32 CT 15 CT	1 6	1500	3¾ x 3⅛ x 3 3/16	6.2	26.93
F-199U	32 CT 15 CT	1 10	1500	4⅛ x 3 7/16 x 3½	7.4	35.50
MULTIPLE SECONDARY PRIMARY 115/230 VOLTS—50/60 Hz						
F-3297Z	15 12 12 CT	.25 .25 .25	1500	2⅜ x 2⅞ x 1⅝	.8	$15.19
F-3298Z	15 12 12 CT	.5 .5 .5	1500	2⅜ x 2 13/16 x 2	1.25	16.55
MULTIPLE SECONDARY PRIMARY 230 VOLTS—50/60 Hz						
F-3295Z	15 12 12 CT	.1 .1 .1	1500	1¾ x 2 x 1½	.41	$11.57
F-395X	32 CT 15 CT	.25 .75	1500	2¼ x 3¾ x 1⅞	1.3	13.29
F-396U	32 CT 15 CT	1 2	1500	3⅜ x 2 13/16 x 2⅝	4.0	19.95
F-397U	32 CT 15 CT	1 4	1500	3¾ x 3⅛ x 2 15/16	4.7	25.21
MULTIPLE SECONDARY PRIMARY 277 VOLTS—60 Hz						
F-293X#	12 12	.5 .5	2500	2 x 3¼ x 1 9/16	.8	$12.93
F-294X#	12 12	1 1	1500	2 x 3¼ x 2	1.2	11.03

*Primary tapped for 105/115/125 volts. #60 Hz operation. †Windings may be connected in series or in parallel.

FLAT PACK™ POWER TRANSFORMERS

Low clearance PC board designs. Primary 115/230 Volts—50/60 Hz.

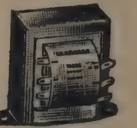
Triad No.	Output Watts	Secondaries In Series	Secondaries In Parallel	Net Each
FP10-600	6	10 VCT @ .6 A	5 V @ 1.2 A	$ 9.53
FP12-475	6	12 VCT @ .475 A	6 V @ .95 A	9.53
FP16-375	6	16 VCT @ .375 A	8 V @ .75 A	9.57
FP20-300	6	20 VCT @ .3 A	10 V @ .6 A	9.57
FP24-250	6	24 VCT @ .25 A	12 V @ .5 A	9.57
FP30-200	6	30 VCT @ .2 A	15 V @ .4 A	9.57
FP101-200	12	10 VCT @ 1.2 A	5 V @ 2.4 A	12.45
FP12-950	12	12 VCT @ .95 A	6 V @ 1.9 A	12.45
FP16-750	12	16 VCT @ .75 A	8 V @ 1.5 A	12.45
FP20-600	12	20 VCT @ .6 A	10 V @ 1.2 A	12.45
FP24-500	12	24 VCT @ .5 A	12 V @ 1 A	12.45
FP30-400	12	30 VCT @ .4 A	15 V @ .8 A	12.45

6 VA units measure .875″ h. x 1.562″ w. x 1.875″ lg; 12 VA units measure 1.062″ h. x 2.000″ w. x 2.500″ lg.

LOW LEVEL AUDIO

X

J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Single-hole mounting, permits rotation for minimum hum pickup. Alloy shielding for a 40–60 dB reduction in hum pickup (60–80 dB on A11J, A12J and A13J); flexible leads. Units have a wide frequency range. Input units electrostatically and magnetically shielded. Circuit diagrams permanently affixed to case.

Triad No.	Application	Primary Imped., Ohms	Net Each
A-9J†	Line or mike to grid	600/250/50	$28.03
A-10J†	Bal. line or mike to grid	600 CT/150*	27.83
A-11J†	Line or mike to grid	600/250/50	31.84
A-12J†	Bal. line or mike to grid	600 CT/150*	31.48
A-13J†	Line to line or transistor	600/300/200 CT/ 110/50*	33.98
A-14J	Bal. line or mike to grid	600 CT/150	33.24
A-15J	Bal. line or mike to grid	600 /250/50	32.67
A-40J	Plate to 1 or 2 grids	15000	27.83
A-41J	Tube to 1 or 2 grids	15000	32.26
A-52J	Line or transistor to line or transistor	500 CT/125*	21.59
A-55J	Plate to line	15000	27.21
A-56J	Line or transistor to VC	500 CT/125*	21.40
A-57J	Line or transistor to line	600/250/50	26.48
A-58J	P-P plates or transistors to line or transistors	10000 CT/2500*	24.26
A-61J	Line to 2 simultaneously loaded lines or transistors	600/150*	30.88
A-65J	Sgl or p-p plates to bal. line	15000 CT	27.79
A-66J	Plate to line	15000	29.59
A-67J†	Bal. line to bal. line	600 CT/150*	28.00
A-68J	Sgl or p-p plates to bal line	15000 CT	32.81
A-69J	P-P plates or bridging to line	25000 CT/6250*	25.69
A-78J	1 or 2 transistor to bal. line	2000 CT	31.28

Note: Frequency response of all units is 30–15,000 Hz except A-61J, 60–15,000 Hz; A-69J, 50–20,000 Hz; A-66J, A-68J, 40–15,000 Hz. *Split winding. †Static shield.

INPUT TRANSFORMERS, LINE OR MIKE TO GRID

Triad No.	Application	Pri. Ohms	Turns Ratio	Size, Inches H. x W. x D.	Net Each
A-1X	Line or mike to grid	100	1:31.4	1 3/16 x2 1/16 x1¼	$ 7.43
A-3X	Line or mike to grid	400*	1:22.1	1 3/16 x2 1/16 x1¼	7.88
A-4X	Line to single grid	†	1:12	1 3/16 x2 1/16 x1¼	12.10
A-6X	Intercom-spkr. VC to grid	8/4	1:79.6	1 3/16 x2 1/16 x1½	7.88

*Center tapped. †500 CT/333/200 CT/125/67.5 CT/50.

DRIVER TRANSFORMERS

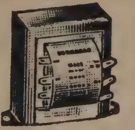
Triad No.	Impedance Primary	Impedance Secondary	Freq., Hz	Size, Inches H. x W. x D.	Net Each
A-81X	15000†	8500 CT	300–3K	1 3/16 x 2 1/16 x 1¼	$ 8.71
A-85X	7000‡	4000 CT	50–10K	1 15/16 x 3 5/16 x 1¾	10.31
TY-61X	100#	100 CT	50–10K	1⅝ x 2 13/16 x 1½	7.12

†15 mADC. ‡40 mADC. #100 mADC.

MATCHING TRANSFORMERS—25 OR 70.7 VOLT LINE

Triad No.	Matching Imped., Ohms Primary	Matching Imped., Ohms Sec.	Audio Watts	Size, Inches H. x W. x D.	Net Each
S-129Z	20.8 CT (25–70 V) 166 CT (70–25 V)	166 CT 20.8 CT	30	3½ x3⅝x2¼	$13.67

Power Transformers



LOW-VOLTAGE, LOW-CURRENT, PLUG-IN PRINTED CIRCUIT POWER TRANSFORMERS

Primary 115 volts, 50/60 Hz.

Triad No.	Output Watts	Secondary		Net Each
		Series Conn.	Parallel Conn.	
PRIMARY 115 VOLTS—50-60 Hz.				
F-131P	1½	8 V CT at .188 A	4 V at .376 A	$ 9.93
F-139P	1½	12.6 V CT at .12 A	6.3 V at .24 A	10.71
F-132P	1½	15 V CT at .10 A	7.5 V at .20 A	9.90
F-150P	1½	17 V CT at .085 A	8.5 V at .17 A	9.33
F-138P	1½	25.2 V CT at .06 A	12.6 V at .12 A	10.78
F-133P	1½	30 V CT at .05 A	15 V at .10 A	10.47
F-160P	1½	34 V CT at .045 A	17 V at .09 A	10.98
F-137P	1½	40 V CT at .038 A	20 V at .076 A	12.07
F-134P	1½	54 V CT at .028 A	27 V at .056 A	11.17
F-135P	1½	76 V CT at .02 A	38 V at .04 A	11.91
F-136P	1½	116 V CT at .013 A	58 V at .026 A	13.29
F-141XP	4½	8 V CT at .562 A	4 V at 1.124 A	7.81
F-149XP	4½	12.6 V CT at .35 A	6.3 V at .70 A	7.81
F-142XP	4½	15 V CT at .30 A	7.5 V at .60 A	7.81
F-161XP	4½	17 V CT at .264 A	8.5 V at .528 A	7.81
F-148XP	4½	25.2 V CT at .178 A	12.6 V at .356 A	7.93
F-143XP	4½	30 V CT at .15 A	15 V at .30 A	7.81
F-162XP	4½	34 V CT at .132 A	17 V at .264 A	7.81
F-147XP	4½	40 V CT at .112 A	20 V at .224 A	8.19
F-144XP	4½	54 V CT at .084 A	27 V at .168 A	7.81
F-145XP	4½	76 V CT at .060 A	38 V at .120 A	7.29
F-146XP	4½	116 V CT at .033 A	58 V at .066 A	7.81
F-151XP	7½	8 V CT at .940 A	4 V at 1.880 A	9.22
F-159XP	7½	12.6 V CT at .60 A	6.3 V at 1.2 A	9.22
F-152XP	7½	15 V CT at .50 A	7.5 V at 1.00 A	9.40
F-163XP	7½	17 V CT at .441 A	8.5 V at .882 A	9.28
F-158XP	7½	25.2 V CT at .30 A	12.6 V at .60 A	9.22
F-153XP	7½	30 V CT at .25 A	15 V at .50 A	9.22
F-164XP	7½	34 V CT at .22 A	17 V at .44 A	9.28
F-157XP	7½	40 V CT at .188 A	20 V at .376 A	9.22
F-154XP	7½	54 V CT at .14 A	27 V at .28 A	9.40
F-155XP	7½	76 V CT at .100 A	38 V at .200 A	9.40
F-156XP	7½	116 V CT at .065 A	58 V at .130 A	10.00
PRIMARY 115/230 VOLTS—50-60 Hz.				
F-3132P	1½	15 V CT at .1 A	7.5 V at .2 A	$ 6.55
F-333P	1½	30 V CT at .05 A	15 V at .10 A	8.28
F-348XP	4½	12.6 V CT at .350 A	6.3 V at .700 A	8.14
F-3142XP	4½	15 V CT at .3 A	7.5 V at .6 A	7.62
F-349XP	4½	16 V CT at .28 A	8 V at .56 A	9.40
F-350XP	4½	24 V CT at .180 A	12 V at .360 A	9.40
F-358XP	4½	20 V CT at .225 A	10 V at .450 A	9.40
F-3143XP	4½	30 V CT at .15 A	15 V at .3 A	7.62
F-363XP	7½	230 V CT at .020 A	115 V at .040 A	10.34
F-3152XP	7½	15 V CT at .5 A	7.5 V at 1.0 A	7.98
F-3153XP	7½	30 V CT at .25 A	15 V at .5 A	7.98
F-359XP	10	24 V CT at .45 A	12 V at .90 A	10.43
F-362XP	10	20 V CT at .500 A	10 V at 1.0 A	10.40
F-365XP	10	12.6 V CT at .800 A	6.3 V at 1.6 A	10.43
F-366XP	10	16 V CT at .640 A	8 V at 1.28 A	10.43

TRIPLE OUTPUT SECONDARIES FOR ±15 VDC AND +5 VDC

Triad No.	Watts	Sec. No. 1	Sec. No. 2	Net Each
F-165P	1½	24 V CT at .025 A	9 V CT at .100 A	$11.36
F-167P	1½	32 V CT at .020 A	15 V CT at .060 A	11.71
F-168XP	4½	32 V CT at .050 A	15 V CT at .195 A	7.84
F-166XP	7½	24 V CT at .125 A	9 V CT at .500 A	9.57
F-169XP	7½	32 V CT at .100 A	15 V CT at .287 A	9.74

SCR TRIGGER—PHOTOFLASH TRANSFORMERS

Triad No.	Turns Ratio	Inductance		Output Volts or Volt/μsec	Net Each
		Primary	Leakage		
PL-10	1:30	2 μH	1 μH	6–8 kV	$ 5.48
PL-11	1:30	15 μH	1.5 μH	10–12 kV	5.52
PL-20	1:1	200 μH	8 μH	2000 V/μsec	6.50
PL-21	1:1:1	200 μH	8 μH	2000 V/μsec	6.81
PL-30	1:1:1	7.5 μH	90 μH	130 V/μsec	13.02
PL-31	1:1	7.5 μH	90 μH	130 V/μsec	9.95
PL-32	2:1	7.5 μH	100 μH	130 V/μsec	10.38
PL-33	2:1:1	7.5 μH	100 μH	130 V/μsec	12.02
PL-34	5:1	7.5 μH	115 μH	130 V/μsec	11.17

UNIVERSAL RECTIFIER POWER

Triad No.	Primary 50/60 Hz	Secondary No. 1 VAC	Secondary ADC		Net Each
			CT†	Bridge	
F-200A	117 V	13/18 at .9 ADC*	....	....	$18.16
F-202U	117 V	11.0–29.5	2.0	1.25	19.95
F-203U	117 V	12.0–30.0	4.0	2.0	21.52
F-204U	117 V	11.5–29.0	8.0	4.0	33.53
F-205U	117 V	12.0–29.5	12.0	6.0	45.53
F-206U	117 V	12.1–29.2	15.0	8.0	72.47
F-207U	117 V	12.2–29.0	22.5	12.0	92.53

*Sec. No. 2, same. †Full wave.

CONTROL TRANSFORMERS

Multiple usage with relays, solenoids, electronic tubes, recording devices and similar applications. All use 115/230 VAC, 50/60 Hz. and have lug type connections.

Triad No.	Secondary		VA Rtg.	Size, Inches		Net Each
	Parallel	Series CT		H.	Base	
F-105Z	6 V at 2 A	12 V at 1 A	12	2⅜	2⅞ x 1¾	$ 9.45
F-106Z	6 V at 4 A	12 V at 2 A	24	2¾	3⅛ x 2	12.43
F-107Z	12 V at 4 A	24 V at 2 A	48	3⅛	3⅝ x 2⅜	13.17
F-398U	12 V at 6 A	24 V at 3 A	72	3 13/32	2 13/16x2 13/16	23.07
F-108U	12 V at 8 A	24 V at 4 A	96	3½	2⅞ x 3	27.22
F-399U	12 V at 12 A	24 V at 6 A	144	3¾	3⅛ x 3½	29.93
F-109U	12 V at 16 A	24 V at 8 A	192	4⅛	3¾ x 3½	51.57
F-211Z	24 V at .5 A	48 V at .25 A	12	2 5/16	2 13/16 x 1½	14.36
F-212Z	24 V at 1 A	48 V at .5 A	24	2¾	3⅛ x 2¼	14.66
F-213Z	24 V at 2 A	48 V at 1 A	48	3 1/16	3⅝ x 2⅜	14.55
F-214U	24 V at 4 A	48 V at 2 A	96	3 13/32	3 3/16 x 2 13/16	23.33
F-400U	24 V at 6 A	48 V at 3 A	144	3¾	3⅛ x 3½	30.91
F-215U	24 V at 8 A	48 V at 4 A	192	4 5/32	3¾ x 3 7/16	39.16

LOW VOLTAGE RECTIFIER TRANSFORMERS

All use 115 volt tapped primary. Used to supply transistor DC voltage, 15 half-wave or 30 in bridge circuit.

Triad No.	Secondary		Test Volts	Size, Inches H. x W. x D.	Net Each
	Volts	Amps			
F-94X	10–20 CT–40 CT	.035	1500	1⅜ x 2⅜ x 1⅜	$ 7.69
F-90X	10–20 CT–40 CT	.1	1500	1⅝ x 2 13/16 x 1⅝	9.36
F-91X	10–20 CT–40 CT	.3	1500	2 9/32 x 3 11/16 x 2	12.07
F-93X	10–20 CT–40 CT	.75	1500	2 19/32 x 4 x 2¼	15.16
F-92A	10–20 CT–40 CT	1.0	1500	3 3/16 x 2 21/32 x 3	20.07
PRIMARY, 230 OR 277 V, 50/60 Hz					
F-394X	10–20 CT–40 CT	.035	1500	1⅜ x 2⅜ x 1⅜	$14.09
F-390X	10–20 CT–40 CT	.1	1500	1⅝ x 2 13/16 x 1⅝	12.76
F-391X	10–20 CT–40 CT	.3	1500	2 9/32 x 3 11/16 x 2	14.29
F-393X	10–20 CT–40 CT	.75	1500	2 19/32 x 4 x 2¼	18.28
F-392A	10–20 CT–40 CT	1.0	1500	3 3/16 x 2 21/32 x 3	25.50

UNIVERSAL RECTIFIER TRANSFORMERS (PRI. 50-60 Hz)

Triad No.	Pri. Volts	Secondary		DC Volts		Case Size, Inches H. x W. x D.	Net Each
		AC Volts	Amps rms	Half Wave	Full Wave		
F-47U	115	17-18	3	6-7	13-14	3x2½x2¾	$17.21
F-347U	115/ 230	17-18	3	6-7	13-14	3x2½x2¾	18.72
F-48U	115	17-18	6	6-7	13-14	3 13/16x3 3/16x3 3/16	24.97
F-49U	115	36† 36†	3 3	13 13	26 26	4⅝x3 13/16x3¾	43.07
F-60U	115	6.5-13-19.5-26	3	9	18	3⅜x2 13/16x2⅝	18.67
F-360U	115/ 230	6.5-13-19.5-26	3	9	18	3⅜x2 13/16x2⅝	19.71
F-61U	115	24-27-30-33-36	3	13	26	3¾x3⅛x3¼	28.74
F-361U	115/ 230	24-27-30-33-36	3	13	26	3¾x3⅛x3¼	31.00
F-67U‡	110/ 120	24-27-30-33-36	8	13	26	4⅝x3 13/16x4⅜	53.72
F-63U	115	8-9† 8-9†	2 2	....	6-7 6-7	3x2½x2½	18.55
F-64U	115	7-8-9	7	....	5-6-7	3⅜x2 13/16x2¾	22.29
F-364U	115/ 230	7-8-9	7	....	5-6-7	3⅜x2 13/16x2¾	22.86
F-62U‡	105/ 115/ 125	9† 9† 9† 9†	10 10 10 10	....	7 7 7 7	4⅝x3 13/16x5¼	51.26
F-68U‡	115	9 CT† 9† 9† 9†	3.5 3.5 3.5 3.5	....	7 7 7 7	3 13/16x3 3/16x3 5/16	30.29
F-65U	110/ 120	140-150-160	.75	60	115	3 13/16x3 3/16x3⅜	27.97
F-74U	117	28 CT† 28 CT†	2 2	....	....	3 13/16x3 13/16x3¼	25.53
F-75U	117	28 CT† 28 CT†	4 4	....	....	4⅛x3 7/16x4⅜	41.22
F-79U‡	115	24-26-28-30	15	11.4	22.8	3 13/16x4⅝x5½	78.81
F-80U‡	115*	12-13.5-15-16.5-18† 12-13.5-15-16.5-18†	20 20	....	13 13	5⅜x4 7/16x5½	136.33
F-84-AC‡	230/ 115§	12 CT† 12 CT†	10 10	....	8.5 8.5	4⅝x3 15/16x5⅛	69.95
F-85U	115*	5-7.5† 5-7.5†	20 20	....	8-12.5	4½x3¾x4½	65.43

*Tapped. †Windings in series or parallel. ‡60 Hz. §Split winding.

MULTI-PURPOSE TV AND STEREO

Triad No.	Secondary No. 1*	Secondary No. 2	Wt., Lbs.	Net Each
F-170SX	20 V CT at .200 ADC	6.3 V at .200 A	.40	$11.86
F-171SX	26 V CT at .200 ADC	6.3 V at .200 A	.50	12.31
F-172SX	24 V CT at .400 ADC	6.3 V at .300 A	.62	13.52
F-173SX	30 V CT at .400 ADC	6.3 V at .300 A	.62	13.62
F-174SX	30 V CT at .500 ADC	6.3 V at .500 A	1.06	11.78
F-175SX	44 V CT at .400 ADC	6.3 V at .500 A	1.25	12.12
F-176SX	40 V CT at .800 ADC	6.3 V at .500 A	1.68	13.76
F-177SX	50 V CT at .800 ADC	6.3 V at 1.000 A	2.31	15.60
F-178SX	60 V CT at .600 ADC	6.3 V at 1.000 A	2.31	15.16
F-179SX	60 V CT at 1.000 ADC	6.3 V at 1.000 A	2.31	17.09

*Secondary No. 1 current rating with FWCT rectifier.

Power Transformers

INSTRUMENT POWER SUPPLY TRANSFORMERS PRIMARY 115 VOLTS,* FOR PREAMPS, VTVM, ETC.

Triad No.	Plate Supply AC Volts	Plate Supply mA DC	Filament Windings Volts and Amps	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each
R-68A‡	800CT	30	5v.-2a., 6.3†-1.2a., 6.3†-1.2 a.	3 3/32 x 2 21/32 x 3⅛	3	**$22.76**
R-23B‡	250CT	22	6.3 v.-.8 a. 15.5/12.6 v.-.6 a.	1⅞ x 2⅝ x 2 3/16	1¾	**18.83**
R-2C‡	135	15	6.3 v.-.9 a.	1¾ x 1⅞ x 1 9/16	1	**14.67**
R-3A‡	500CT	20	6.3 CT-2 a.	2 25/32 x 2 11/32 x 2½	1¾	**16.95**
R-53Z	500CT	25	6.3-1A.	2 5/16 x 2⅞ x 2	1	**11.07**
R-55Z	250CT	25	6.3v.-1a.	2 5/16 x 2⅞ x 1¾	1	**12.40**
R-29A‡	230CT	40	6.3 CT-1.5 a.	2 25/32 x 2 11/32 x 2⅜	1¾	**15.09**
R-30X‡	135	50	6.3 v.-1.5 a.	2 9/32 x 3¾ x 2⅛	1½	**12.86**
R-54X‡	115	15	6.3 v.-.6 a.	1⅝ x 2 13/16 x 1⅝	1	**8.53**
R-54Z‡	115	15	6.3v.-.6a.	1 15/16 x 2 7/16 x 1⅝	1	**9.43**
R-56A‡	130	20	0/15/22.5/30-.6 a.	2 25/32 x 2 11/32 x 2¾	2	**16.40**

*50–60 Hz (R-54X, R-55Z, 60 Hz). †Series or parallel. ‡Static shield.

FOR CATHODE RAY TUBES (115 V 50-60 Hz)

Triad No.	Plate Supply AC Volts	Plate Supply mA DC	Filament Windings Volts and Amps	Case Size, Inches H. x W. x D.	Net Each
R-41C	440-0-440- 1250	125 5	5 v.-3 a., 2.5 v.†-1.75 a., 2.5 v.†-1.75 a., 6.3 v.-.6 a.	3¼ x 4 3/16 x 3½	**$44.29**
R-45C	400-0-400- 800	30 5	5 v.†-2 a., 5 v.†-2 a., 6.3 v.-.6 a., 6.3 CT-3 a., 6.3 v.-1 a.	2⅝ x 3¾ x 3⅛	**34.40**
R-43C	1600	3	6.3/5/2.5/0 v.-1 a. 6.3/5/2.5/0 v.-3 a.	2⅜ x 3 1/16 x 2 9/16	**34.45**
R-84K	....	.....	6.3-.6 a.	2¾ x 2¼ x 2¾	**15.64**

†Windings may be connected in series or parallel.

FOR REGULATED POWER SUPPLIES

All have static shield; 115 volts, 50–60 Hz.

Triad No.	Plate Supply AC Volts	Plate Supply mA DC	Filament Windings Volts and Amps	Case Size, Inches H. x W. x D.	Net Each
R-70A	880†	75	6.3 v.-.6 a., 6.3 v.-.9 a., 6.3 v.-.3 a., 6.3 v.-3 a.	3 15/16 x 3 9/32 x 3⅜	**$31.59**
R-26A	880-720†	200	6.3†-8 a., 6.3 v.-3 a., 6.3 v.-1 a., 5 v.-3 a.	4⅝ x 3 15/16 x 4⅝	**55.29**

†Center tapped.

ISOLATION TRANSFORMERS—50-60 Hz

All units have static shield.

Triad No.	VA Output	Input Volts	Output Volts	Case Size, In. H. x W. x D.	Net Each
N-48X	15	115	115	1 15/16 x 3 5/16 x 2	**$ 8.45**
N-49X	35	115	57.5-115‡	2 9/32 x 3 11/16 x 2⅛	**11.69**
N-51X	35	115	115	2 9/32 x 3 11/16 x 2⅛	**11.12**
N-68X	50	115/230‡	115	2 9/32 x 3 11/16 x 2⅛	**14.16**
N-53M#	85	115	115	3 19/32 x 2 31/32 x 3⅝	**25.69**
N-54M#	150	115	115	3⅞ x 3 9/32 x 4¼	**35.17**
N-73A	150	115	115/230‡	3⅞ x 3 9/32 x 3⅝	**29.64**
N-74A	150	115	57.5/115‡	3⅞ x 3 9/32 x 3⅞	**31.12**
N-67A	150	115/230‡	115	3⅞ x 3 9/32 x 3⅞	**29.22**
N-55M#▲	250	115	115	4⅝ x 3 15/16 x 5	**54.84**
N-66A	250	115/230‡	115	4⅝ x 3 15/16 x 4⅝	**47.29**
N-57M#▲	500	115	115	5 5/16 x 4½ x 6¼	**146.60**
N-59M#▲	1000	115	115	5 5/16 x 4½ x 8	**153.33**
N-52M*	350	95–130§	115	4⅝ x 3 15/16 x 7¾	**152.50**
N-469A†	50	220/440‡	115	3 3/16 x 2 21/32 x 2½	**17.40**
N-470A†	150	220/440‡	115	3⅞ x 3 9/32 x 3⅝	**26.36**
N-471A†	300	220/440‡	115	4⅝ x 3 15/16 x 4⅜	**45.64**

*With cord, switch and meter for primary voltage control. †60 Hz. ‡Split winding. §5-volt steps. #Also available with 3-wire cord, plug, socket. ▲230 volt primary (MG).

UNIVERSAL ISOLATING AUTOFORMERS

For 50/60 Hz voltage control use. Four 115 V windings.

Triad No.	Output Watts (VA) Isolation	Output Watts (VA) Auto-former	rms Test Voltage	Size, Inches H. x W. x D.	Net Each
N-64AC	500	1000	1500	5 5/16 x 4½ x 5½	**$ 88.38**
N-62U	1000	2000	1500	6½ x 5½ x 5	**180.98**
N-60SC	2000	4000	2500	4¾ x 8½ x 13½	**343.07**

COMBINED PLATE AND FILAMENT TRANSFORMERS

Static Shield; Primary 115 Volts—50–60 Hz

Triad No.	Secondary AC Volts	Secondary mA DC	Rect. Fil. V	Rect. Fil. A	Other Filament Volts	Other Filament A	Wt. Lbs.	Net Each
R-22A*	380/ 320 CT	70	...	...	6.3 6.3 CT	.6 3	2¾	**$21.41**
R-4A	500 CT	40	...	...	6.3 CT	2	1¾	**16.36**
R-5A	600 CT	65	...	...	6.3 CT	2.7	2¾	**19.29**
R-6A	480 CT	50	5	2	6.3 CT	2	2¾	**20.69**
R-7A*	600 CT	50	5	2	6.3 CT	2	2¾	**20.52**
R-8A	500 CT	75	5	2	6.3 CT	2.5	3	**23.14**
R-9A	600 CT	75	5	2	6.3 CT	3	3½	**24.93**
R-10A	525 CT	90	5	2	6.3 CT	5	4½	**25.24**
R-11A	700 CT	90	5	3	6.3 CT	3.5	4¼	**26.78**
R-11B	700 CT	90	5	3	6.3 CT	3.5	4¼	**26.40**
R-12A	550 CT	110	5	2	6.3 CT	5	4½	**26.67**
R-14A	700 CT	125	5	3	6.3 CT	4.5	6	**31.00**
R-14B	700 CT	125	5	3	6.3 CT	4.5	6	**29.72**
R-16A	700 CT	160	5	3	6.3 CT	5	7	**34.90**
R-20A	700 CT	200	5	3	6.3 CT	8	9¼	**41.38**
R-20B	700 CT	200	5	3	6.3 CT	8	9¼	**40.12**
R-72A*	800 CT	140	5	3	6.3 CT	4	5¾	**31.71**
R-21B	800 CT	200	5	3	6.3 CT	6	9¼	**43.48**
R-24A*	800 CT	300	5	6	6.3 CT	6	14	**49.66**
R-25A	800 CT	500	5	6	6.3 CT	7	19	**104.91**
R-71A*	900 CT	250	5	4	6.3 6.3 CT 6.3	3 2 4	12	**48.69**

*60 Hz.

COMBINED PLATE AND FILAMENT

Primary 115 Volts—60 Hz

"Climatite" treated coils and cores for protection against moisture and for elimination of lamination chatter. Small in size, yet loss is at a minimum. Temperature rise design is 55° C. Copper foil static shields grounded to case and core.

Triad No.	Secondary AC Volts	Secondary mA DC	Rect. Fil. V	Rect. Fil. A	Other Filament Volts	Other Filament A	Wt., Lbs.	Net Each
R-104A	500 CT	40	...	...	6.3 CT	2	1.55	**$15.78**
R-104B	500 CT	40	...	...	6.3 CT	2	1.55	**15.47**
R-105A	600 CT	65	...	...	6.3 CT	2.7	2	**18.05**
R-105B	600 CT	65	...	...	6.3 CT	2.7	2	**17.59**
R-106A	480 CT	50	5	2	6.3 CT	2	2.1	**19.47**
R-108A	500 CT	75	5	2	6.3 CT	2.5	2.4	**19.69**
R-109A	600 CT	75	5	2	6.3 CT	3	2.9	**19.97**
R-110A	525 CT	90	5	2	6.3 CT	5	3.25	**22.95**
R-110B	525 CT	90	5	2	6.3 CT	5	3.25	**22.76**
R-111A	700 CT	90	5	3	6.3 CT	3.5	3.25	**24.38**
R-111B	700 CT	90	5	3	6.3 CT	3.5	3.25	**24.10**
R-112A	550 CT	110	5	2	6.3 CT	5	3.7	**24.22**
R-112B	550 CT	110	5	2	6.3 CT	5	3.7	**24.64**
R-114A	700 CT	125	5	3	6.3 CT	4.5	4.7	**25.95**
R-115A	680 CT	70	5	2	6.3 CT	2.5	3.5	**22.17**
R-116A	700 CT	160	5	3	6.3 CT	5	5.65	**29.45**
R-118B	750 CT	175	5	3	6.3 CT	8	7.45	**42.10**
R-120A	700 CT	200	5	3	6.3 CT	8	8.25	**35.07**
R-121A	800 CT	200	5	3	6.3 CT	6	8.25	**39.36**

PLATE POWER TRANSFORMERS

Static Shield; Primary 115 Volts—50/60 Hz

Triad No.	Secondary Volts AC§	Secondary Volts DC	Secondary mADC CCS	Secondary mADC ICAS	Rect. Fil.	Wt. Lbs.	Net Each
P-1A	440/220 CT	180/90	160	192	5V-3A	4	**$ 30.45**
P-3A	600/300 CT	250/125	300	360	5V-4A	6.25	**36.90**
P-5A#	1100 CT	400	250	300	5V-4A	8	**48.48**
P-7A#	1235 CT	500	250	300	5V-4A	9	**52.21**
P-11A#	1455 CT	600	250	300	......	8.5	**46.83**
P-14A	1780 CT‡	750/600	250	300	......	13.5	**73.45**
P-215AL	2340 CT*†	1000	250	300	......	13.5	**70.03**
P-217AL	2880 CT*†	1250	250	300	......	14.8	**76.95**
PR-21AL#	3300 CT*†	1500	500	600	......	29	**151.93**

*Primary, 115/230 VAC. †Plate leads outside of case for rectifiers. ‡Also 1425 VAC CT. §Secondary CT must be grounded. #60 Hz operation.

SOLID STATE RECTIFIER POWER TRANSFORMERS

Pri., 117 V, 50/60 Hz. Fil. 2 and 3 are 6.3 V.

Triad No.	Sec. Volts	DC A	Fil. 2, 3	Net Each	Triad No.	Sec. Volts	DC A	Fil. 2, 3	Net Each
R-200A	400 CT	0.4	3a	**$42.29**	**R-208A**	80 CT	1.2	.....	**$19.22**
R-201A	300 CT	0.6	2.5a	**37.31**	**R-204A**	80 CT	2.0	1.5a	**38.60**
R-202A	200 CT	0.8	2a	**40.84**	**R-209B**	60 CT	3.0	.....	**26.78**
R-203A	100 CT	1.6	1.5a	**35.95**	**R-205A**	60 CT	2.5	1.5a	**32.47**
R-82B	70 CT	3.0	.....	**35.48**	**R-206B**	54 CT	1.25	.....	**18.71**

SIGNALING TRANSFORMERS

Triad No.	Primary Volts	Secondary Volts, AC	Amps	Size, Inches H. x W. x D.	Net Each
F-102X	115	4/8/12/16/20/24	2	2 9/32 x 3 11/16 x 2½	**$12.31**
F-104U	115	4/8/12/16/20/24	4	3½ x 2⅞ x 2 9/16	**22.21**

Power Supplies and Gauges

TOROIDAL INDUCTORS

Numbers indicate mH ratings. Tolerance, ±2% unless noted. Molded toroids with gold plated fixed terminals available; add suffix **A**. Prices on request. **A model only.

TYPE EM (¾″ dia. x ⅜″ h.)

EM-	mA*	Net	EM-	mA*	Net	EM-	mA*	Net
001	150	$7.64	015	39	$ 8.43	150	12.5	$ 9.79
002	108	7.64	025	30	6.86	200	11	10.41
004	76	7.95	030**	27.6	13.48	250**	9.6	14.57
005	68	8.07	050	22	9.09	300	8.8	11.52
007	57	9.28	060	19.5	9.28	400	7.6	12.07
010	48	8.34	100	15	9.64	1000	4.8	14.29

TYPE ET (1¼″ dia. x ⅝″ h.)

ET-	mA*	Net	ET-	mA*	Net	ET-	mA*	Net
001	680	$ 8.62	015	177	$ 9.02	150	56	$10.57
002	480	8.69	020**	153	13.64	200	48	10.16
003	396	8.62	025	137	11.00	250	43	9.40
004**	342	11.00	030**	125	13.17	300	40	10.22
005	306	8.86	050	97	8.02	400	34	10.50
007	260	7.28	060**	88	13.40	500	31	10.28
010**	217	16.29	100	68	10.10	700	26	10.28

*For 5% inductance drop. **A model only.

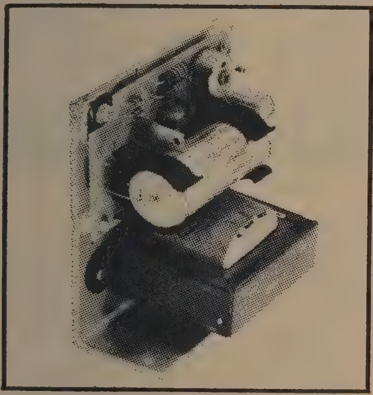
TYPES EA, EC AND EK

EA-	mA*	Net	EC-	mA*	Net	EK-	mA*	Net
001	270	$ 6.19	001	520	$ 7.09	030	150	$12.16
002	192	6.74	003	300	7.14	040	130	9.88
005**	121	10.53	005	233	7.21	080	92	14.03
010	86	6.71	007	195	7.57	100	82	12.29
015	70	6.78	010	165	7.48	200	58	12.97
020	60	6.62	020	116	7.57	250	52	10.17
025	54	6.10	030	95	6.47	700	31	14.53
030	50	7.29	050	74	7.79	1000	26	15.43
040	43	7.41	100	52	8.43	4000	13	12.97
050**	38	11.86	200	37	8.81	7000	9.8	17.55
070	32	7.09	250	33	5.12	30000	4.7	22.93
100	27	7.52	300	30	8.69			
150	22	7.41	400	26	9.55			
200	19	7.26	500	23	9.52			
300	16	4.86	1000	16.5	10.14			
500	12	8.98	1500**	13.5	14.53			
600	11	8.90	2000	11.6	9.83			
1000	8.6	9.83	3000	9.5	12.10			
			5000	7.4	13.24			
			7000	6.2	10.93			
			10000	5.2	6.41			

SIZES

EA: 1⅛″ dia. x ½″ h.
EC: 1 7/16″ dia. x ¾″ h.
EK: 2⅛″dia. x 15/16″h.

RELIABLE, LOW COST GENERAL PURPOSE SUPPLIES



- **Glass Epoxy Printed Circuit Board**
- **High performance IC regulator**
- **Computer grade filter capacitor**
- **All silicon semiconductors**
- **Foldback current limiting and short circuit protection**
- **Adjustable output**

SPECIFICATIONS

Input: 115 volts ±10%, 60 Hz ±5%.

Regulation: Line, ±0.5%; load, ±0.5%.

Ripple: 5 mV rms or 15 mV p-p max.

Temperature Coefficient: 2%/°C.

Grounding: Floating output either positive or negative max. may be grounded.

Output Adjustment: ±5%.

Size: 2½″ x 4″ x 4½″.

Triad Number	Output Volts	Output Amps		Net Each, Lots of			
		40° C	65° C	1-9	10-24	25-49	50-99
P-543	5	3.0	1.5	$60.64	$54.58	$49.12	$46.17
P-546	12	1.5	0.8	62.12	55.91	50.32	47.30
P-547	15	1.5	0.8	66.16	59.54	53.59	50.37
P-548	24	1.0	0.5	62.67	56.40	50.76	47.71

20 AMP DC POWER SOURCE

DC POWER SUPPLY
12.5VDC AT 20 AMPS
MODEL PS-2001

Provides the CB operator, amateur or boat owner an easy method of converting his mobile receiver or other battery operated automotive or marine equipment to "base station" use. Capable of handling a complete ham, CB or marine mobile station, including large SSB amplifiers up to 400 watts PEP output. The output voltage remains constant at 12.5 volts ±0.5 volts at 20 amps, and for line variations from 90 to 135 volts. Ripple voltage is 1.25 volts, p-p at 12.8 volts. A thermal switch protects the supply in case of overheating. A ferro-resonant transformer automatically limits the output current to 35 amps. Size, 7½″ h. x 9½″ d. x 6¼″ w. Weight, 27 lbs.

Triad No. PS-2001—Net Each.................... **$162.53**

LEAD BENDING GAUGES

Simple, precise gauges can be used to form up to 1200 leads per hour, easily and without damage to components. Five models provide fast, accurate forming for most components used in printed circuits. Each has 40 numbered positions for various lead formations; leads are bent rapidly with gentle finger pressure. **Type MK-1,** with .375″ to 1.50″ centers is for ¼-watt resistors, plus diodes, disc capacitors and other components of similar size. **Type MK-2,** with .50″ to 1.50″ centers, is for ½-watt resistors. **Type MK-3,** with .75″ to 2.50″ centers is for 1-watt resistors. **Type MK-4,** with .875″ to 2.50″ centers, is for 2-watt resistors and "top hat" diodes. The **MK-5** (.260 to 1.42 mtg. ctrs.) accepts all ⅛ watt resistors and diodes—standard RC05 and DO-35 type components. Propes lead spacing can be assured by aligning the gauge between holer or terminals to be used, noting the slot number that corresponds to the required size. Can also be used to form jumper wires.

Triad Type	For Resistor Size	Net Each, Lots of			
		1-9	10-24	25-49	50-99
MK-1	¼-watt	$6.34	$5.71	$5.14	$4.83
MK-2	½-watt	6.34	5.71	5.14	4.83
MK-3	1-watt	8.00	7.20	6.48	6.09
MK-4	2-watt	8.00	7.20	6.48	6.09
MK-5	⅛-watt	6.34	5.71	5.14	4.83

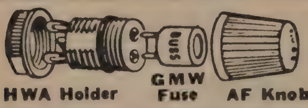
Buss® and Fusetron® Fuses, Holders

TRON SUBMINIATURE PIG-TAIL FUSES

Glass-tube construction with 1⅜" leads of #24 tinned copper for 1/100–5 amp ratings, #18 tinned copper for 7–15 amp ratings. Hermetically sealed. Color coded to indicate amp ratings. For circuits with fault current of 50 amps or less (1/100–5 amps for 125 V or less, 7–15 amps for 32 V or less). GLN, GLX body, .140" x .3"; GFA body, .145" x .3". GFA, UL Recognized.

Buss No.	Amperes	Net Each	
		♦	■
GLN	1/100	$4.16	$3.50
GLN	1/32, 1/20, 1/16, 1/10, 3/10, 4/10, 7, 8, 10, 15	3.52	2.96
GLX	2/10, 1/4, 1/2, 6/10, 3/4, 1, 1½, 2, 3, 4, 5	5.02	4.22
GFA	1/200, 1/100, 1/64, 1/32, 1/20, 1/16, 1/10, 1/8, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10	1.53	1.29
GFA	3/4, 1, 1½, 2, 3, 4, 5, 7, 8, 10, 12, 15	1.40	1.18

SUBMINIATURE PRONG TYPE UNIT



Rated 125 V max; fault current under 300 A. Open at 200% in 10 sec. Use AF knob for waterproof. Body .27" dia., .25" long. GMW and HWA* devices UL Recognized.

Buss No.	Amperes	Net Each	
		♦	■
GMW	1/200,1/100, 1/64, 1/32, 1/16	$2.61	$2.19
GMW	1/10, ⅛, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 1, 1½, 2, 3, 4, 5	1.99	1.67
HWA*	Holder, fits all GMW	2.22	1.87
HWA†	Holder, fits all GMW	2.46	2.07
AF	Knob only, fits HWA	.32	.27

*With AF knob. †Without AF knob.

13/64 x 45/64 inch FUSES

(5 mm X 20 mm)

Protection of miniaturized circuits commonly used in foreign equipment. Carry 100% open at 200% in 10 sec.

Buss No.	Amperes	Net Each	
		♦	■
GMA	⅛, 1/10, 2/10	$1.07	$0.90
GMA	¼, 3/10, 4/10, ½, 6/10, 7/10, ¾, 8/10	.83	.69
GMA	1, 1-2/10, 1½, 1-6/10, 2, 2½, 3, 3½, 4, 5, 6, 7, 8, 10, 15	.74	.62

1/4 x 5/8 inch FUSES

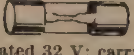
FAST ACTING FUSES

Glass tube, ¼" x ⅝". Rated 32 V, carry 110%, open at 135% in 1 hour.

AGA	1, 1½, 2, 2½, 3	$0.26	$0.22
AGA	5, 6, 7, 7½, 10, 15, 20, 25, 30	.19	.16

1/4 x 7/8 inch FUSES

FAST ACTING FUSES



Glass tube, rated 32 V; carry 110%, open at 135% in 1 hour.

AGW	1, 1½, 2, 2½, 3, 4	$0.26	$0.22
AGW	5, 6, 7½, 15, 20, 30	.19	.16

♦Less than $150 net. ■$150 net and over.

1/4 x 1 inch FUSES

FAST ACTING FUSES

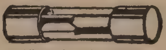
Glass tube, ¼" x 1". Carry 100%, open at 200% in 5 sec. Up to 1/32 A sizes have bridge elements, others have straight-through element. UL Listed to 5 amps.

Buss No.	Amperes	Volts	Net Each	
			♦	■
AGX	1/500	250	$4.64	$3.90
AGX	1/200	250	2.07	1.74
AGX	1/100, 1/32	250	1.61	1.35
AGX	1/16	250	.86	.72
AGX	1/10, ⅛, 3/16, 2/10	250	.71	.59
AGX	¼, 3/10, ⅜, 4/10, ½, ¾	250	.40	.34
AGX	1, 1½, 2, 3, 4	125*	.26	.22
AGX	5, 6, 7, 8, 10, 15	32†	.19	.16
AGX	20, 25, 30		.19	.16
AGX	35, 50	32	.26	.22

*1A, 250. †5A, 125.

1/4 x 1-1/4 inch FUSES

FAST ACTING FUSES



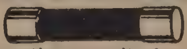
Glass tube, ¼" x 1¼". Carry 110%, open at 135% in 1 hour or less. 1/500 to 2 amp sizes will open at 200% in 5 seconds or less. 1/500 to 1/32 amp have bridge construction; all others straight-through element.

AGC	1/500	250*	$4.61	$3.87
AGC	1/200	250*	2.03	1.71
AGC	1/100	250*	1.56	1.31
AGC	1/32, 1/20	250*	1.40	1.18
AGC	1/16, ⅛, 15/100, 175/1000, 3/16, 1/10, 2/10	250*	.71	.59
AGC	¼, 3/10, ⅜, 4/10, 45/100, ½, 6/10, ¾, 8/10	250*	.40	.34
AGC	1, 2, 3, 4	250*	.26	.22
AGC	5, 6, 7, 8, 9	32‡	.18	.15
AGC	10, 12, 14, 15	250*	.18	.15
AGC	20, 25, 30	32‡	.18	.15
AGC	35, 40, 50	32‡	.26	.22

*UL Listed. ‡UL Recognized.

1/4 x 1-1/4 inch FUSES

CERAMIC TUBE FUSES

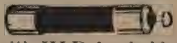


High interrupting capacity for use on circuit delivering as high as 25,000 amps at 125 V, or 10,000 amps at 250 V. ¼" x 1¼". Carry 110%, open at 135% in 1 hour. Up to 15 amp size UL Listed.

ABC	¼, ½, ¾, 1, 1½, 2, 2½, 3, 4	250	$0.55	$0.46
ABC	5, 6, 7, 8, 10, 12, 15	250	.50	.42
ABC	20, 25, 30	125	.84	.71

1/4 x 1-1/4 inch FUSES

VISUAL INDICATING FUSES



For use with HLD fuseholder. Bright red dot on indicating pin extends from end of fuse when fuse is open even after power is off. Rated 125 V or less, carries 110%, opens at 135% in 1 hour or less. Only ¼" x 1¼". UL Listed to 5 amps.

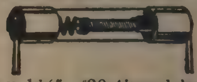
Buss No.	Amperes	Net Each	
		♦	■
GBA	½	$2.24	$1.88
GBA	¾	1.83	1.54
GBA	1, 1½, 2, 2½, 3, 4, 5	1.37	1.16
GBA	6, 8, 10, 15	1.80	1.52

Fiber tube with silver plated indicating pin which extends when fuse is blown. To 5 A may be used to actuate a signal when used in HKA fuseholder or Signal Fuse Block. Dual tube construction over 5 amps. Under 8 amps, 125 V; 8 amps up, 32 V. Size ¼" x 1¼". UL Listed to 5 amps.

GLD	½, ¾, 1, 1½, 2, 2½, 3, 4, 5	$1.71	$1.44
GLD	6, 8, 10, 12, 15, 20, 25, 30	1.90	1.60

1/4 x 1-1/4 inch FUSES

FUSETRON PIG-TAIL FUSES



Body ¼" x 1¼", #20 tinned leads, 1¼". 1/100 to 2-8/10 same as MDL type; 3 to 7 amps same as MDX type. UL Listed.

Buss No.	Amperes	Volts	Net Each	
			♦	■
MDV	1/100, 1/32	250	$1.40	$1.18
MDV	1/16, 1/10, ⅛, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, ¾, 8/10, 1	250	1.05	.89
MDV	1¼, 1½, 1-6/10, 1-8/10, 2, 2¼	125	1.03	.86
MDV	2½, 2-8/10, 3, 3-2/10, 3½, 4, 5, 6, 6¼, 7	125	.85	.72

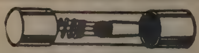
PIG-TAIL FUSES

Glass tube ¼" x 1¼" with 1¼" leads of #20 tinned wire. Carry 110%, open 135% in 1 hour. 250 V. UL Listed.

Buss No.	Amperes	Net Each	
		♦	■
GJV	1/16, 1/10, ⅛, 2/10	$0.98	$0.82
GJV	¼, 3/10, ⅜, ½, ¾	.64	.54
GJV	1, 1½, 1¾, 2, 2½, 3	.52	.44
GJV	4, 5, 6, 7, 8, 10	.55	.46

1/4 x 1-1/4 inch FUSES

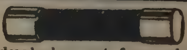
FUSETRON GLASS TUBE FUSES



Dual-element slow blowing ¼" x 1¼". Link opens only on high overloads; thermal cutout functions on low overloads (cannot operate fast on any load). Carry 110%, open at 135% in 1 hour. MDL to 2-8/10 A and MDX 3 to 7 A UL Listed; MDL 8 to 30 A UL Recognized. MDL type has longer time lag than MDX type.

Buss No.	Amperes	Volts	Net Each	
			♦	■
MDL	1/100, 1/32	250	$1.13	$0.95
MDL	1/16, 1/10, ⅛, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1		.89	.75
MDX	1¼, 1½, 1-6/10, 2	250	.88	.74
MDL	1-2/10, 1¼, 1½, 1-6/10, 1-8/10, 2	125	.88	.74
MDL	2½, 2-8/10	125	.88	.74
MDX	3, 3-2/10, 4, 5	125	.71	.60
MDX	6¼, 7	125	.78	.66
MDL	3, 3-2/10, 4, 5, 6¼, 8, 10, 15, 20, 25, 30	32	.77	.65

1/4 x 1-1/4 inch FUSES



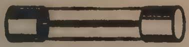
Fusetron dual-element fuse, slow-blowing type, ceramic tube. Carry 110%, open at 135% in 1 hour. UL Recognized to 20 A.

MDA	1/100, 1/32	250	$1.57	$1.32
MDA	1/16, 1/10, ⅛, 15/100, 175/1000, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, ¾, 8/10	250	1.13	.95
MDA	1, 1¼, 1½, 1-6/10, 2	250	1.23	1.03
MDA	2½, 3, 4, 5, 6, 6¼, 7, 8, 10, 12, 15, 20, 25, 30	125	.88	.74

Buss® and Fusetron® Fuses, Holders

9/32 x 1-1/4 inch FUSES

AGS GLASS TUBE FUSES



Test specification; carry, 110%, open at 135% within 1 hour except 35 and 40 amp units which open at 300% in 2 to 4 seconds when tested in standard 30-amp test circuit. **Note:** These units in sizes larger than 30 amps are not recommended for use in fuse clips or fuseholders as clips will not carry the high currents.

Buss No.	Amperes	Volts	Net Price For ♦	Net Price For ■
AGS	1/16	...	$1.49	$1.26
AGS	1/8	...	1.07	.90
AGS	1/4, 1/2, 1, 2, 2 1/2, 3, 4	...	.57	.48
AGS	5, 6, 8, 10, 15	...	.40	.34
AGS	20, 25, 30	...	.35	.30
AGS	35, 40, 50	...	.50	.42

9/32 x 1-1/4 inch FUSES

CERAMIC TUBE FUSES

Carry at 110%, open at 135% in one hour; 30 and 40 amp units open at 300% in 2 to 4 seconds when tested in standard 30-amp test circuit.

ABS	1, 2, 3	250	$0.92	$0.77
ABS	5, 6, 8, 10	250	.86	.72
ABS	15, 20, 25, 30	125	.92	.77
ABS	40	32	.98	.82

9/32 x 1-1/4 inch FUSES

FUSETRON DUAL-ELEMENT FUSES

Glass tube, slow-blowing. Avoids needless blows from starting currents or surges, yet provides protection against short circuits or continuous overloads. Carry 110%, open at 135% in one hour. Approximate blowing time, 25 sec at 200% load, 8 sec at 300% load, 3 sec at 500% load.

MDM	1/10, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 3/4, 8/10, 1	250	$1.13	$0.95
MDM	1 1/4, 1-6/10, 2	125	1.13	.95
MDM	2 1/2, 2-8/10, 3	125	.88	.74
MDM	3-2/10, 4, 5, 6 1/4, 8, 10, 15, 20, 25, 30, 35, 40	32	.88	.74

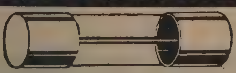
13/32 x 1-3/8 inch FUSES

"QUICK-BLOWING" 600 V FUSES

Designed to protect circuits where quick-blowing characteristics are desired. Use HPC-L fuseholder or 3845 fuse block. UL Listed. Fiber tube 13/32" x 1 3/8".

Buss No.	Amperes	Net Each ♦	Net Each ■
BBS	2/10, 4/10, 1/2, 6/10, 3/4, 8/10, 1, 2, 3, 4, 5	$1.49	$1.26
BBS	6, 7, 8, 10, 15, 20, 25, 30	1.49	1.26

13/32 x 1-1/2 inch FUSES



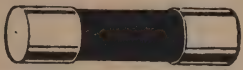
Glass tube; carry 110%, open at 135% in one hour. Below 4 amp sizes UL Listed.

Buss No.	Amperes	Volts	Net Each ♦	Net Each ■
AGU	1, 2, 3, 4, 5, 8, 10, 15	250	$0.64	$0.54
AGU	20, 25, 30, 35, 40, 50, 60	32	.59	.50

♦Less than $150 net. ■$150 net and over.

13/32 x 1-1/2 inch FUSES

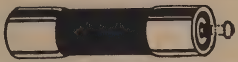
MIDGET TYPE FUSES



Up to 15 amp size UL Listed.

Buss No.	Amperes	Volts	Net Each ♦	Net Each ■
BAF	1/2, 1, 3, 6, 6 1/4	250	$0.77	$0.65
BAF	7, 8, 9, 10, 12, 15, 20, 25, 30	125	.62	.53

INDICATING, LAMINATED TUBE FUSES



Red button on indicating pin extends from end of fuse when fuse is blown. Units are built in accordance with Navy Specifications. These units may be used in Buss HPC-C fuseholders. Voltage, (1-15 amps), 250, others, 125 V.

MIN	1, 2, 3, 5, 6, 10, 15, 20, 25, 30	$1.78	$1.49

SIGNAL OR VISUAL INDICATING FUSES

MIC fuses: Silver-plated indicating pin may be used as visual indicator, or to actuate a signal. **MIJ** fuses: Similar to MIC type, specially designed for complex circuitry as in compuyers. Under 20 A, 250 V; 20 A up, 32 V. UL Listed to 15 amps.

MIC	1, 2, 3, 5, 10, 15, 20, 25, 30	$1.84	$1.55
MIJ	1, 2, 5, 10, 15	2.28	1.92

FUSETRON FIBER TUBE FUSES

Dual-element slow-blowing type, 13/32" x 1 1/2" overall. Fuse link operates only on very high overloads or short circuits; thermal cutout functions on low overloads (cannot operate quickly on any overload, thus providing longer time lag). Carry 110%, open at 135% in 1 hour. 125 and 250 volt sizes UL Listed.

Buss No.	Amperes	Volts	Net Each ♦	Net Each ■
FNM	1/10, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10 8/10	250	$1.62	$1.37
FNM	1, 1 1/8, 1 1/4, 1-4/10, 1 1/2, 1-6/10 1-8/10, 2, 2 1/4, 2 1/2, 2-8/10, 3, 3-2/10, 3 1/2, 4, 4 1/2, 5, 5-6/10, 6, 6 1/4, 7, 8, 9, 10, 12, 15, 20, 25, 30	125	1.56	1.33

INDICATING FUSETRON FUSES

Similar to FNM types. Indicating pin extends from fuse when fuse blows. Use in signal fuse block or HPC-C fuseholder (larger than 10 amps units cannot be used in HPC-C). UL Listed in 0–15 amp sizes.

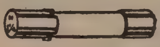
FNA	1/10, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1 1/8, 1 1/4, 1-4/10, 1 1/2, 1-6/10, 1-8/10	$2.79	$2.37
FNA	2, 2 1/4, 2-8/10, 3, 3-2/10, 3 1/2, 4, 4 1/2, 5, 5-6/10, 6, 6 1/4, 7, 8, 10 12, 15, 20, 25, 30	3.11	2.64

13/32 x 1-1/2 inch FUSES

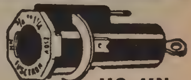
HIGH INTERRUPTING CAPACITY FUSES

Type KTK—For use on circuits as high as 100,000 amps at 600 volts or less, AC only. Glass fiber melamine tubes and sand filler surrounding a silver fuse element. **Amperes:** 1/10, 1/8, 2/10, 1/4, 3/10, 1/2, 3/4, 1, 1 1/2, 2. 2 1/2, 3, 3 1/2, 4, 5, 6, 7, 8. 9, 10, 12, 15. Net Each, less than $150 net, **$3.67**; $150 net and over, **$3.11.** UL Listed.

TYPE C AND N FUSES, HOLDERS



C, N



HC, HN

Matched glass fuses and fuseholders for specific size ranges. **Type N** fuses are dual-element time-delay or slow-blowing type. 0 to 1 1/4 amp sizes, 1/4" x 1 1/4"; 1-3/10 to 7 amp sizes, 1/4" x 1 7/16". **Type C** fuses are single-element quick-blowing type. 0 to 3 1/2 amp sizes, 1/4" x 1 1/16"; 3-6/10 to 10 amp sizes, 1/4" x 1 1/4". Holders rated at 250 volts. Fuses UL Listed, holders UL Recognized.

TYPE N FUSES

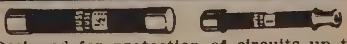
Amperes	Holder No. HN-	Volts	Net Each ♦	Net Each ■
1/16, 1/10, 15/100, 2/10, 1/4, 3/10	0 to 3/10	250	$1.01	$0.85
4/10	3/10 to 1/2	250	1.01	.85
1/2	3/10 to 1/2	250	1.01	.85
6/10	1/2 to 3/4	250	1.01	.85
7/10, 3/4	1/2 to 3/4	250	1.01	.85
8/10, 1	3/4 to 1 1/4	250	1.01	.85
1 1/4	3/4 to 1 1/4	250	.97	.82
1 1/2	3/4 to 1 1/4	250	.97	.82
1-6/10	1-3/10 to	125	.97	.82
1 3/4	1 3/4	125	.97	.82
2	1 3/4 to 2 1/2	125	.97	.82
2 1/2	1 3/4 to 2 1/2	125	.97	.82
2-8/10	2 1/2 to 3 1/2	125	.97	.82
3	2 1/2 to 3 1/2	125	.97	.82
3-2/10	2 1/2 to 3 1/2	125	.97	.82
3 1/2	2 1/2 to 3 1/2	125	.97	.82
4	3 1/2 to 5	125	.97	.82
5	3 1/2 to 5	125	.97	.82
6	5 to 7	125	.97	.82
7	5 to 7	125	.97	.82

TYPE C FUSES

Amperes	Holder No. HC-	Volts	Net Each ♦	Net Each ■
1/32	0 to 3/10	250	$1.64	$1.38
1/16	0 to 3/10	250	1.09	.92
1/8, 3/16	0 to 3/10	250	.66	.56
1/4	0 to 3/10	250	.66	.56
3/10	0 to 3/10	250	.66	.56
3/8	3/10 to 1/2	250	.66	.56
1/2	3/10 to 1/2	250	.66	.56
3/4	1/2 to 3/4	250	.66	.56
1	3/4 to 1 1/4	250	.40	.34
1 1/4	3/4 to 1 1/4	250	.40	.34
1 1/2	1 1/4 to 1 3/4	250	.40	.34
1 3/4	1 1/4 to 1 3/4	250	.40	.34
2	1 3/4 to 2 1/2	250	.40	.34
2 1/2	1 3/4 to 2 1/2	250	.40	.34
3	2 1/2 to 3 1/2	250	.40	.34
3 1/2	2 1/2 to 3 1/2	250	.43	.36
4	3-6/10 to 5	250	.43	.36
5	3-6/10 to 5	250	.43	.36
6, 7	5 to 7	250	.43	.36
8, 10	7 to 10	250	.74	.62

Type HC and Type HN Fuseholders—All sizes (specify). Net Each, less than $150 net, **$0.64**; $150 net and over, **$0.56.**

HIGH VOLTAGE FUSES



Designed for protection of circuits up to 20 kW on DC and 30 kVA on AC.

Buss No.	Amperes	V	Net Each ♦	Net Each ■
HVA	1/8		$1.74	$1.47
HVA	2/10, 3/8, 1/2, 3/4, 1, 1 1/2, 2		1.58	1.34
HVB	1/2, 3/4, 1, 1 1/2, 2	2500	1.86	1.58
HVJ	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 2	5000	3.15	2.67
HVL	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2, 2	10K	4.98	4.22

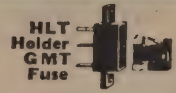
Buss® and Fusetron® Fuses, Holders

SFE STANDARD FUSES

Different amperages are different lengths, making it impossible to over-fuse. Glass tube, ¼″ dia. Carry 110%, open at 135% in 1 hour. Made to SAE specifications and UL Listed, 32 volts or less.

Buss No.	Amperes	Lgth. In.	Net Each ♦	Net Each ■
SFE	4	⅝	$0.18	$0.15
SFE	6	¾	.18	.15
SFE	7½, 9	⅞	.18	.15
SFE	14	1 1/16	.17	.14
SFE	20	1¼	.17	.14
SFE	30	1 7/16	.25	.21

SIGNAL-INDICATING ALARM ACTIVATING TYPE UNIT

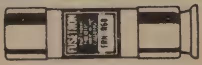


Takes only ¼″ x 1 15/32″ space. Color indicator. Rated 300 V or less; 100% for 10 min.; open at 150% in 5 min. UL Recognized.

Buss No.	Amperes and Color of Indicator	Net Each ♦	Net Each ■
GMT	18/100*, ¼†, ½‡, 65/100§, ¾#, 1•, 1⅓▲, 2■, 3♦, 5Ɪ, 7½⁑, 10**	$1.41	$1.18
HLT	Holder, fits all GMT	1.60	1.35

Color of Indicator: *Yellow; †violet; ‡red; §black; #brown; •gray; ▲white; ■orange; ♦blue; Ɪgreen; ⁑black-white; **red-white.

FUSETRON DUAL-ELEMENT FUSES



Long time-lag prevents useless shut-downs caused by ordinary fuses opening on starting currents or other harmless overloads, yet protects against short-circuits. On normal installations will guard motors against burnout from overloads or single phasing. UL Listed. For motor running and circuit protection up to 250 volts.

Buss No.	Amperes	Net Each ♦	Net Each ■
FRN-R	1/10, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, 8/10, 1, 1⅛, 1¼, 1-4/10, 1½, 1-6/10, 1-8/10, 2, 2¼, 2½, 2-8/10	$2.27	$1.92
FRN-R	3, 3-2/10, 3½, 4, 4½, 5, 5-6/10, 6, 6¼, 7, 8, 9, 10, 12	2.08	1.76
FRN-R	15, 17½, 20, 25, 30	1.67	1.42
FRN-R	35, 40, 45, 50, 60	3.10	2.63

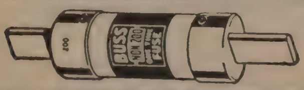
FRN-R	70, 80, 90, 100	$13.34	$11.31

BUSS ONE-TIME FUSES

FAST ACTING FUSE

Each can be depended upon to operate as intended under all service conditions to 250 V. UL Listed.

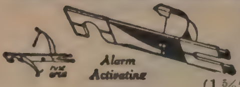
Buss No.	Amperes	Net Each ♦	Net Each ■
NON	1, 1½, 2, 3, 4, 5, 6, 7, 8, 10, 12	$0.56	$0.48
NON	15, 20, 25, 30	.52	.44
NON	35, 40, 45, 50, 60	.82	.70



NON	70, 80, 90, 100	$3.57	$3.03

♦Less than $150 net. ■$150 net and over.

GRASSHOPPER FUSES



Alarm activating and signal indicating. Length: 1 43/64″, except 35D (1⅝″), 35E (1 63/64″).

Buss No.	Amps	Blowing Time Amp	Blowing Time Sec.	Net Each ♦	Net Each ■
35A*	1⅓#	2	90	$1.09	$0.92
35B*	1⅓**	2	90	1.09	.92
35B*	2**	3	180	1.09	.92
35C*	2#	3	180	1.09	.92
35D*	1⅓**	2	90	2.05	1.72
35E*	3**	4	300	1.09	.92
35F*	½#	¾	9	1.09	.92
35G*	3**	4½	300	1.09	.92
35H*	5**	6½	300	1.09	.92
35J†	½#	¾	90	1.54	1.29
35K†	1⅓#	2	180	2.05	1.72
35L†	2#	3	180	2.05	1.72
35M†	3**	4½	300	1.87	1.57
35N†	5**	6½	300	1.87	1.57
35P†	¾#	1⅛	90	1.44	1.21
35R*	18/100#	.270	90	1.44	1.21
35S†	¼#	.375	90	1.54	1.29
35T*	65/100#	1.1	180	1.54	1.29

Volts: *90 or less. †160 or less. Mounting Screw: #No. 10. **No. 6.

TRON® RECTIFIER FUSES

For Protection of Semiconductor Rectifiers and Similar Applications

Especially designed for protection of semiconductor rectifiers, thyristors and other solid state devices. High interrupting capacity and very fast clearing to restrict let-through current and energy to very low values. Give safe short-circuit protection for systems with fault current to 200 kA at 600 volts or less. Carry 100%, open at 1000 secs between 150% and 180% of rating; open within 1 sec. at 250% of rating. **GBB** series UL Recognized.

GBB SERIES

Size, 1¼″ lg. x ¼″ dia.

Buss No.	Amperes	Max. Volts	Net Ea.♦
GBB	¼, 1, 1¼, 2, 3, 4, 5, 6, 7, 8, 9, 10	130	$2.20
GBB	12, 15, 20, 25, 30	65	2.20

KAA SERIES

Size, 1½″ lg. x 13/32″ dia. Also available up to 1000 amps; prices on request.

KAA	½, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 20, 25, 30	130	$3.07

KAW SERIES

Size, 1½″ lg. x 13/32″ dia.

KAW	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 20, 25, 30	130	$3.20

KAB SERIES

Size, 9/16″ dia. x 2″ lg., values to 30 amps; 1 7/32″ dia. x 3⅛″ lg., 70 amps to 200 amps. Also available up to 800 amps; prices on request.

KAB	½, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 17½, 20, 25, 30	250	$ 3.52
KAB	70, 80, 90, 100, 125, 150, 175, 200	250	15.87

KAC SERIES

Size, 2⅞″ lg. x 9/16″ dia. Also available up to 800 amps; prices on request.

KAC	1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 15, 17½, 20, 25, 30	600	$ 5.21

BLOCKS FOR TRON® RECTIFIER FUSES

Buss No.	No. Poles	For Fuse* No.	For Fuse* Amp	Base Size, In.	Net Ea.♦
4515	1	KAA or KAW	1–30	¾ x2 9/16	$2.09
4525	2			1 5/16 x2 9/16	4.07
4535	3			2 1/16 x2 9/16	5.97
4386	1	KAB	1–30	¾ x3¼	3.11
4287	2			2 x3½	5.97
3959	3			3 x3½	9.34
3556	1	KAB	70–100	1½ x3⅛	6.76
3521	3			5 23/32x3⅛	20.26
3595	1	KAC	1–30	1¼ x3½	4.98
3528	2			2½ x3½	9.83

***GBB** series, use any BUSS block for ¼ x 1¼ in. fuses.

BLOCKS FOR 1/4 x 5/8 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
4511	1	Screw	$1.43
4521	2	Screw	2.68
4531	3	Screw	4.13

BLOCKS FOR 1/4 x 7/8 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
4393	1	None	$0.76
4398	1	Solder	.76
4399	1	Screw	1.12
4401	2	Solder	1.32
4402	2	Screw	2.21
4403	3	Solder	2.01
4404	3	Screw	3.25
4485	2	Solder	1.32
4517	1	Screw	1.43
4520	1	Solder	.76
4537	3	Screw	4.13

BLOCKS FOR 1/4 x 1 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
3828-1	1	Solder	$0.64
3828-2	2	Solder	1.01
3828-3	3	Solder	1.66
3828-4	4	Solder	2.05
3828-5	5	Solder	2.51
3828-6	6	Solder	2.98
3828-7	7	Solder	3.35
3828-8	8	Solder	3.79
3828-9	9	Solder	4.30
3828-10	10	Solder	4.77
3828-12	12	Solder	5.78
4393	1	None	.76
4398	1	Solder	.76
4399	1	Screw	1.12
4401	2	Solder	1.32
4402	2	Screw	2.21
4403	3	Solder	2.01
4404	3	Screw	3.25
4485	2	Solder	1.32
4514	1	Screw	1.43
4520	1	Solder	.76
4524	2	Screw	2.68
4534	3	Screw	4.13

BLOCKS FOR 1/4 x 1-1/4 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
4405	1	Solder	$0.76
4408	2	Solder	1.32
4411	3	Solder	2.01
4512	1	Screw	1.43
4522	2	Screw	2.68

Buss® and Fusetron® Fuses, Holders

BLOCKS FOR ¼ x 1¼ INCH FUSES (CONT'D)

All have molded black phenolic bases with corrosion resistant Albaloy plated spring clips.

SOLDER TERMINAL TYPE ON SMALL BASE

Buss No.	No. of Poles	Base Size, Inches	Net Ea.♦
3823-1	1	½ x 1⅝	$0.64
3823-2	2	1⅛ x 1⅝	1.01
3823-3	3	1¾ x 1⅝	1.66
3823-4	4	2⅜ x 1⅝	2.05
3823-5	5	3 x 1⅝	2.51
3823-6	6	3⅝ x 1⅝	2.98
3823-7	7	4¼ x 1⅝	3.35
3823-8	8	4⅞ x 1⅝	3.79
3823-9	9	5½ x 1⅝	4.30
3823-10	10	6⅛ x 1⅝	4.77
3823-11	11	6¾ x 1⅝	5.24
3823-12	12	7⅜ x 1⅝	5.78

SCREW TERMINAL TYPE ON FULL BASE

3833-1	1	25/32 x 2⅜	$ 1.08
3833-2	2	1 11/16 x 2⅜	2.41
3833-3	3	2 19/32 x 2⅜	3.98
3833-4	4	3⅓ x 2⅜	4.93
3833-5	5	4 13/16 x 2⅜	6.15
3833-6	6	5 11/16 x 2⅜	7.35
3833-7	7	6 7/32 x 2⅜	8.59
3833-8	8	7⅛ x 2⅜	9.79
3833-9	9	8 1/32 x 2⅜	11.09
3833-10	10	8 15/16 x 2⅜	12.39
3833-11	11	9 27/32 x 2⅜	13.53
3833-12	12	10¾ x 2⅜	14.77

BLOCKS FOR 9/32 x 1-1/4 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
4413	1	Solder	$1.12
4414	1	Solder	1.12
4415	1	Screw	1.95
4416	2	Solder	2.21
4418	2	Screw	3.41
4481	1	Screw	1.95
4482	2	Screw	3.41
4483	3	Screw	5.13

BLOCKS FOR 13/32 x 1-3/8 inch FUSES

UL Recognized.

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
3845	1	Screw	$2.41

BLOCKS FOR 13/32 x 1-1/2 inch FUSES

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
2807	1	Screw	$ 2.25
2808	2	Screw	3.70
2809	3	Screw	5.11
2810	1	Pressure lug	4.43
2811	2	Pressure lug	8.69
2812	3	Pressure lug	13.17
3792	1	Screw	2.41
4421	1	Solder	1.60
4422	1	Solder	1.60
4423	1	Screw	1.76
4424	2	Solder	3.25
4427	2	Screw	3.41
4428	3	Solder	4.71
4429	3	Screw	5.13
4439	3	Screw	6.91
4415	1	Screw	1.95
4525	2	Screw	4.07
4535	3	Screw	5.97
4575	2	Screw	4.27

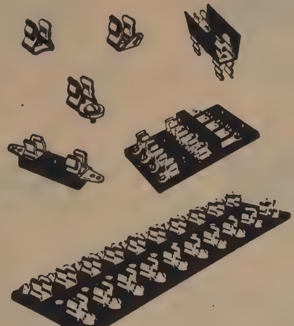
POLARIZED BLOCKS FOR SILICON RECTIFIERS

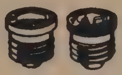
Buss No.	No. of Poles	Terminal Type	Net Ea.♦
3794	1	Solder	$0.72
3795	2	Solder	1.24

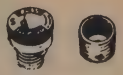
BLOCKS FOR HIGH VOLTAGE FUSES

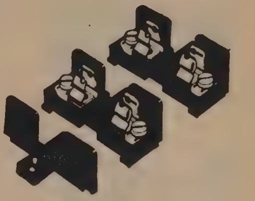
Buss No.	No. of Poles	For Fuse	Net Ea.♦
4528	1	Buss HVA	$3.77
4529	1	Buss HVB	5.56
4530	1	Buss HVJ	7.76

♦Less than $150 net. ■$150 net and over.


Fuse Clips and Blocks


Plug Fuses


Fustat Fuses


Add-on Fuse Block

BLOCKS FOR 13/32 x 1-1/2 inch FUSES

SIGNAL FUSE BLOCK

Base dimensions, 2.688" x 4.375". For use with BUSS FAN and FNJ indicating fuses.

Buss No.	No. of Poles	Terminal Type	Net Ea.♦
3839	4	Screw	$15.40

ADD-ON FUSE BLOCKS

Make fuse block of any number of poles. Each single pole nests against next one; new poles can be added at any time. Order one end barrier plus any number of poles. Marking strip available to identify poles. Rated 30 A at 600 V. UL Recognized.

Buss No.	Description	Terminal Type	Net Ea.♦
3742	End barrier only	....	$0.49
3743	One pole block only	Screw	3.23
3723	Marking strip, 50"	....	1.51

BUSS FUSE CLIPS

Buss No.	Description	For Fuse Dia., In.	Net Ea.♦
3434	Insul. twin clip	¼	$0.58
5681-15	Clip	¼	.13
5678-14	Clip and terminal	¼	.13
5682-01	Clip	¼	.23
5682-41	Clip	¼	.11
5682-44	Clip	¼	.11
4567	Clip assembly	¼	.37
4583	Clip assembly	¼	.39
5682-02	Clip	¼	.23
5672-11	Clip	9/32	.18
5674-41	Clip	9/32	.16
4560	Clip assembly	9/32	.60
4585	Clip assembly	9/32	.82
5674-01	Clip	9/32	.16
5956-16	Clip	13/32	.15
5960-61	Clip	13/32	.22
5960-07	Clip	13/32	.65
5960-63	Clip	13/32	.22
4561	Clip assembly	13/32	.60
4586	Clip assembly	13/32	.99
5960-09	Clip	13/32	.65

CLEAR WINDOW PLUG FUSE

Shockproof fuses are insulated with porcelain-like high voltage power lines. Top cap protects fingers from shock and cuts. Always fit fuseholders. UL Listed.

Buss No.	Amperes	Net Each ♦	Net Each ■
W	1, 2, 3, 5, 6, 8, 10	$0.35	$0.30
W	15. 20, 25, 30	.27	.23

FUSETRON DUAL-ELEMENT PLUG FUSES

Time-delay fuses recommended by N.E. Code. Will not blow under motor-starting or other current surges, yet provides full protection against heavy currents or short circuits. Rated up to 125 V. UL Listed.

Buss No.	Amperes	Net Each ♦	Net Each ■
T	3/10, 4/10, ½, 6/10, 8/10. 1, 1-⅛, 1-¼, 1-4/10, 1-6/10, 1-8/10, 2, 2-¼	$1.41	$1.20
T	2½, 2-8/10, 3-2/10, 3½, 4, 4½, 5, 5-6/10, 6¼, 7, 8, 9, 10, 12, 14	1.41	1.20
T	15, 20, 25, 30	.72	.61

FUSTAT FUSES AND ADAPTERS

Time-delay fuses with type S base recommended by N.E. Code. Prevents overfusing when used with proper size adapter. Rated up to 125 V. UL Listed. Adapters not included with Fustat fuses; order separately and specify size.

Fustat Fuses, Amps	Adapter	Fustat Fuses, Amps	Adapter
S3/10	SA1*	S3½	SA4
S4/10	SA1*	S4	SA4
S½	SA1*	S4½	SA5§
S6/10	SA1*	S5	SA5§
S8/10	SA1*	S5-6/10	SA6¼#
S1	SA1*	S6¼	SA6¼#
S1⅛	SA1¼*	S7	SA8
S1¼	SA1¼*	S8	SA8
S1-4/10	SA1-6/10*	S9	SA10•
S1-6/10	SA1-6/10*	S10	SA10•
S1-8/10	SA2	S12	SA15▲
S2	SA2	S14	SA15▲
S2¼	SA2½†	S15	SA15▲
S2½	SA2½†	S20	SA20
S2-8/10	SA3-2/10‡	S25	SA30■
S3-2/10	SA3-2/10‡	S30	SA30■

*Adapter also takes all smaller sizes. †Also takes 2, 1-8/10 sizes. ‡Also takes 2½, 2¼, 2, 1-8/10 sizes. §Also takes 4, 3½ sizes. #Also takes 5, 4½, 4, 3½ sizes. •Also takes 8, 7 sizes. ▲Also takes 10, 9, 8, 7 sizes. ■Also takes 20 size.

Buss Fustats—3/10 through 14 amp sizes. Net Each, less than $150 net..... **$1.44**

Buss Fustats—15 through 30 amp sizes. Net Each, less than $150 net..... **$ .76**

Fustat Adapters—SA1 through SA10. Net Each, less than $150 net......... **$ .70**

FUSE ASSORTMENT

Sturdy metal stand holds 130 fuses (5 fuses per box, 26 sizes in individual 5" boxes). Inventory feature shows what fuses need reordering.

Buss No. 130—Net■. **$66.83**

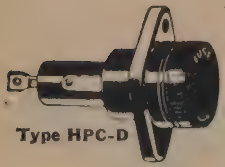
Buss® Fuseholders

Type HPF

Types HC and HN

Type HKL

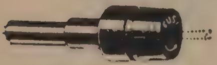
Types HMR and HMS


Type HPC-D

Series HJ and HK

Type HKA

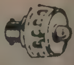
Series HR

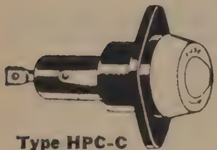

Series HH and HI

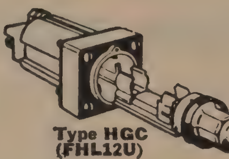
Types HLQ and HLR

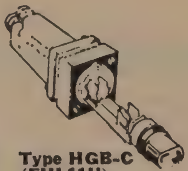
Series HCM

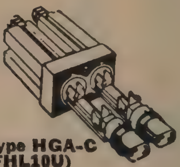
Type HLD

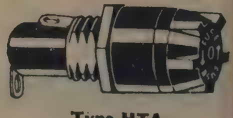

No. 5487


Type HPC-C


Type HGC (FHL12U)


Type HGB-C (FHL11U)


Type HGA-C (FHL10U)


Type HTA

Fuse voltage on lamp indicating holders shows operating range for lamp indication.

Fuse voltage on non-indicating holders shows maximum voltage of fuses commercially available that will fit holders.

LAMP-INDICATING FOR 1/4 x 1 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HJL	Panel	100–250	20 A	$ 6.46

SIGNAL ACTIVATING-LAMP INDICATING FOR 1/4 x 1-1/4 inch INDICATING FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HKA	Panel	125 or less	5 A	$12.78

LAMP INDICATING FOR 1/4 x 1-1/4 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HGA	Panel	100–250	30 A	$18.68
HGA-C	Panel	100–250	30 A	20.66
HGB*	Panel	100–250	30 A	15.78
HGB-C	Panel	100–250	30 A	17.38
HKL	Panel	100–250	20 A	5.73
HKL-X	Panel	100–250	20 A	5.73
HKR	Panel	24–32	20 A	9.05
HKT	Panel	10–14	20 A	9.05
HKU	Panel	4–6	20 A	9.05
HKX	Panel	24–32	20 A	9.05

*UL Recognized.

VISUAL INDICATING FOR 1/4 x 1-1/4 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HLD*	Panel	125 or less	30 A	$ 1.54

*UL Recognized.
♦Less than $150 net. ■$150 net and over.

NON-INDICATING FOR 1/4 x 1 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HDI	Inline	250 or less	15 A	$0.54
HHI	Inline	250 or less	15 A	.84
HJM*	Panel	125 or less	30 A	1.31
HJM-CC	Panel	125 or less	30 A	1.31
HJM-H	Panel	125 or less	30 A	1.45
9969	Spring nut for panel mounting inline holder			.13

*UL Recognized.

SHIELDED NON-INDICATING FOR 1/4 x 1-1/4 INCH FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HMR	Panel	250 or less	30 A	$15.38

NON-INDICATING FOR 1/4 x 1-1/4 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HCM	Panel	250 or less	18 A	$2.00
HDJ	Inline	250 or less	15 A	.54
HHJ	Inline	250 or less	15 A	.84
HKP*	Panel	250 or less	30 A	1.31
HKP-CC	Panel	250 or less	30 A	1.31
HKP-H	Panel	250 or less	30 A	1.45
HLF*	Panel	250 or less	30 A	1.31
HMB*	Panel	250 or less	30 A	1.31
HTA*	Panel	250 or less	15 A	1.31
9969	Spring nut for panel mounting inline holders			.13
HMJ	HDJ holder†			1.22
HRJ	HHJ holder†			1.35

*UL Recognized. †w/SFE-20 fuse, wire leads.

LAMP INDICATING FOR 13/32 x 1-1/2 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HGC	Panel	200–500	30 A	$19.81

NON-INDICATING FOR 13/32 x 1-1/2 inch FUSES

UL Recognized.

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HPC-D	Panel	250 or less	30 A	$ 6.92

NON-INDICATING FOR 9/32 x 1-1/4 inch FUSES

Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HCM	Panel	250 or less	18 A	$ 2.00

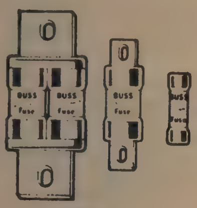
SHIELDED NON-INDICATING FOR 1/4 x 1 inch FUSES

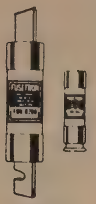
Buss No.	Type of Mount	Fuse Voltage	Cur. Cap.	Net Ea.♦
HMS	Panel	250 or less	30 A	$15.38

OTHER STANDARD AND SPECIAL FUSES, BLOCKS AND HOLDERS

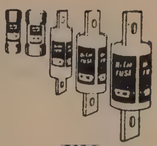
If the fuses, fuse blocks and holders shown do not fit your requirements ask for information on other types. Fuses and fuse mountings to meet JAN and Military specifications also available. If you have a special problem in protection, send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSS® Fuses


FBP


FRN-R

KRP-C


JHC

LPN-RK

REN

BUSS 700-VOLT SEMICONDUCTOR FUSES

Semiconductor fuses have very fast fault clearing and extremely low I^2t and Ip let-thru values. Ideal for protection of diodes, SCRs and other solid state devices. Have full 700-volt rating, AC or DC. Two series available: **FEP**, compact dimensions to save space; **FWP**, made for equipment with mountings for existing 700-volt fuses. UL recognized.

Buss No.	Amperes	Net Each ♦	Net Each ■
FBP	15, 20 25, 30	$ 6.19	$ 5.25
FBP	35, 40, 45, 50, 60	14.72	12.48
FBP	70, 80, 90, 100	18.83	15.97
FBP	125, 150, 175, 200	25.23	21.40
FBP	250, 300, 350, 400	41.13	34.88
FBP	450, 500, 600	77.02	65.32
FBP	700, 800	94.65	80.27
FBP	900, 1000	123.33	104.59
FWP	15, 20, 25, 30	6.19	5.25
FWP	35, 40, 45, 50, 60	14.72	12.48
FWP	70, 80, 90, 100	18.87	16.00
FWP	125, 150, 175, 200	25.18	21.35
FWP	250, 300, 350, 400	41.10	34.85
FWP	450, 500, 600	77.00	65.30
FWP	700, 800	94.64	80.27
FWP	900, 1000	123.31	104.58

FUSETRON® DUAL ELEMENT FUSES

Provide motor running protection as well as branch circuit protection. High interrupting capacity; rating of 200,000 amperes rms symmetrical. Lesser element resistance results in cooler operation. Fusetron dual element fuses also provide thermal protection for panels and switches against damage from heat, due to poor contact. Available in **FRN-R,** 0–14 A at 125 VDC/250 VAC and 15–600 A at 250 volts AC-DC; **FRS-R,** 0–14 A at 125 VDC/600 VAC and 15–600 A at 600 volts AC-DC. All series available in 1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1-1/8, 1-1/4, 1-4/10, 1-6/10, 1-8/10, 2, 2-1/4, 2-1/2, 2-8/10, 3-2/10, 3-1/2, 4, 4-1/2, 5, 5-6/10, 6-1/4, 7, 8, 9, 10, 12, 15, 17-1/2, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500 and 600 amperes; specify when ordering. e.g., **FRN-R 1/10 amp.**

Buss No.	Amperes	Net Each ♦	Net Each ■
FRN-R	1/10 to 2-8/10	$ 2.27	$ 1.92
FRN-R	3 to 12	2.08	1.76
FRN-R	15 to 30	1.67	1.42
FRN-R	35 to 60	3.10	2.63
FRN-R	70 to 100	6.97	5.91
FRN-R	110 to 200	15.34	13.01
FRN-R	225 to 400	27.67	23.46
FRN-R	450 to 600	42.35	35.92
FRS-R	1/10 to 2-8/10	4.54	3.85
FRS-R	3 to 12	4.22	3.58
FRS-R	15 to 30	3.78	3.21
FRS-R	35 to 60	6.44	5.46
FRS-R	70 to 100	13.34	11.31
FRS-R	110 to 200	26.68	22.63
FRS-R	225 to 400	53.40	45.29
FRS-R	450 to 600	76.72	65.06

KRP-C HI-CAP TIME-DELAY FUSES

Safe fuse protection for heavy-duty mains and feeders carrying loads above 600 amps and up to 6,000 amps at 600 VAC or less. Interrupting rating of 200,000 amps rms symmetrical at 600 volts or less, plus great current limitation and long time-lag, permits accurate co-ordination with protective devices on feeders and distribution circuits. For essential information on selection of KRP-C fuses in proper ratings, ask for bulletin HCS and refer to time-current and current-limiting charts. KRP-C fuses conform to UL and CSA standards.

Buss No.	Amperes	Net Each ■
KRP-C 601	601	$158.07
KRP-C 650	650	158.07
KRP-C 700	700	158.07
KRP-C 800	800	158.07
KRP-C 900	900	158.07
KRP-C 1000	1000	158.07
KRP-C 1200	1200	158.07
KRP-C 1350	1350	204.16
KRP-C 1400	1400	204.16
KRP-C 1500	1500	204.16
KRP-C 1600	1600	204.16
KRP:C 1800	1800	269.27
KRP-C 2000	2000	269.27
KRP-C 2500	2500	353.25
KRP-C 3000	3000	411.22
KRP-C 3500	3500	549.00
KRP-C 4000	4000	549.00
KRP-C 4500	4500	671.89
KRP-C 5000	5000	671.89
KRP-C 6000	6000	823.01

JHC HI-CAP TIME-DELAY FUSES

JHC Hi-Cap time-delay fuses with 200,000 amperes rms interrupting capacity and great current limitation. Substantial time delay. Class J dimension. CSA listed at 100,000 amperes. For detailed information, ask for bulletin JHCS.

Buss No.	Amperes	Net Each ♦	Net Each ■
JHC	15, 20, 25, 30	$ 6.17	$ 5.23
JHC	35, 40, 45, 50, 60	11.13	9.44
JHC	70, 80, 90, 100	25.79	21.88
JHC	110, 125, 150, 175, 200	51.97	44.08
JHC	225, 250, 300, 350, 400	101.21	85.83
JHC	450, 500, 600	130.78	110.91

LOW-PEAK DUAL-ELEMENT FUSES

Low-peak fuses hold 500% load for minimum of 10 seconds. Interrupting rating of 200,000 amperes rms symmetrical. Limit currents to low values. Have short-circuit limiting element plus time-delay element. Conforms to UL, Class RK1 requirements. CSA listed; HRC Form 1, Class H. Available in **LPN-RK,** 0–14 A at 125 VDC/250 VAC and 15–600 A at 250 volts AC-DC; **LPS** and **LPS-RK,** 0–14 A at 125 VDC/600 VAC and 15–600 A at 250 VDC/600 VAC. All series available in 1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1-1/8, 1-1/4, 1-6/10, 1-8/10, 2, 2-1/4, 2-1/2, 2-8/10, 3-2/10, 3-1/2, 4, 4-1/2, 5, 5-6/10, 6-1/4, 7, 8, 9, 10, 12, 15, 17-1/2, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500 and 600 amperes; specify when ordering.

LOW-PEAK DUAL-ELEMENT FUSES (CONTINUED)

Buss No.	Amperes	Net Each ♦	Net Each ■
LPN-RK	1/10 to 12	$ 4.27	$ 3.62
LPN-RK	15 to 30	3.93	3.33
LPN-RK	35 to 60	9.17	7.78
LPN-RK	70 to 100	21.47	18.21
LPN-RK	110 to 200	44.51	37.75
LPN-RK	225 to 400	88.77	75.29
LPN-RK	450 to 600	109.36	92.75
LPS-RK	1/10 to 12	5.88	4.98
LPS-RK	15 to 30	5.52	4.68
LPS-RK	35 to 60	11.68	9.91
LPS-RK	70 to 100	26.47	22.45
LPS-RK	110 to 200	53.02	44.97
LPS-RK	225 to 400	109.18	92.59
LPS-RK	450 to 600	135.07	114.56

SUPER-LAG® RENEWABLE FUSES

Super-Lag fuses with replaceable links offer economy and dependability far surpassing other fuse types. UL and CSA listed. Complete fuses and replacement links are available, each in two series: **REN** (complete fuse) and **LKN** (replacement link) for up to 250 volts AC-DC; **RES** (complete fuse) and **LKS** (replacement link) for up to 600 volts AC-DC. All series available in 1, 2, 3, 4, 5, 6, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500 and 600 amperes; specify when ordering. e.g., **REN 600** for 600 ampere fuse.

Buss No.	Amperes	Net Each ♦	Net Each ■
REN	1 to 10	$ 2.37	$ 2.01
REN	12 to 30	2.18	1.85
REN	35 to 60	4.27	3.62
REN	70 to 100	9.55	8.10
REN	110 to 200	21.54	18.27
REN	225 to 400	38.90	32.99
REN	450 to 600	59.42	50.39
RES	1 to 10	5.94	5.04
RES	12 to 30	5.40	4.58
RES	35 to 60	8.48	7.20
RES	70 to 100	19.26	16.33
RES	110 to 200	37.37	31.69
RES	225 to 400	75.37	63.92
RES	450 to 600	107.55	91.21
RENEWAL LINKS			
LKN	1 to 10	$0.46	$0.39
LKN	12 to 30	.15	.13
LKN	35 to 60	.29	.25
LKN	70 to 100	.59	.50
LKN	110 to 200	1.23	1.05
LKN	225 to 400	2.39	2.02
LKN	450 to 600	3.62	3.07
LKS	1 to 10	.77	.65
LKS	12 to 30	.32	.28
LKS	35 to 60	.59	.50
LKS	70 to 100	1.23	1.05
LKS	110 to 200	2.24	1.90
LKS	225 to 400	4.23	3.58
LKS	450 to 600	5.86	4.97

♦Less than $150 net. ■$150 net and over.

INTERNATIONAL RECTIFIER
Semiconductor Protective Fuses

SEMICONDUCTOR PROTECTIVE FUSES

- Identical replacements for Buss and Chase-Shawmut lines.
- Rated by semiconductor specialists.
- Competitively priced.
- Superior performance.
- Welded construction prevents thermal fatigue.
- Ceramic body prevents charring and arcing.
- Pure silver links.

I-R No.	Ratings		Net Each, Lots	
	Amps	Volts	1-24	25-999
SF13X5	5	130	$ 2.26	$ 2.05
SF13X10	10	130	2.26	2.05
SF13X15	15	130	2.26	2.05
SF13X20	20	130	2.26	2.05
SF13X25	25	130	2.26	2.05
SF13X30	30	130	2.26	2.05
SF13X35	35	130	4.78	4.35
SF13X40	40	130	4.78	4.35
SF13X45	45	130	4.78	4.35
SF13X50	50	130	4.78	4.35
SF13X60	60	130	4.78	4.35
SF13X70	70	130	8.91	8.10
SF13X80	80	130	8.91	8.10
SF13X100	100	130	8.91	8.10
SF13X125	125	130	8.91	8.10
SF13X150	150	130	8.91	8.10
SF13X200	200	130	9.35	8.50
SF13X250	250	130	9.35	8.50
SF13X300	300	130	9.35	8.50
SF13X350	350	130	9.35	8.50
SF13X400	400	130	9.35	8.50
SF13X500	500	130	21.23	19.30
SF13X600	600	130	21.23	19.30
SF13X700	700	130	25.30	23.00
SF13X800	800	130	25.30	23.00
SF25X5	5	250	2.47	2.25
SF25X10	10	250	2.47	2.25
SF25X15	15	250	2.47	2.25
SF25X20	20	250	2.47	2.25
SF25X25	25	250	2.47	2.25
SF25X30	30	250	2.47	2.25
SF25X35	35	250	8.58	7.80
SF25X40	40	250	8.58	7.80
SF25X50	50	250	8.58	7.80
SF25X60	60	250	8.58	7.80
SF25X70	70	250	11.00	10.00
SF25X80	80	250	11.00	10.00
SF25X100	100	250	11.00	10.00
SF25X125	125	250	11.00	10.00
SF25X150	150	250	11.00	10.00
SF25X175	175	250	11.00	10.00
SF25X200	200	250	11.00	10.00
SF25X225	225	250	13.96	12.69
SF25X250	250	250	13.96	12.69
SF25X300	300	250	13.96	12.69
SF25X350	350	250	13.96	12.69
SF25X400	400	250	13.96	12.69
SF25X450	450	250	20.13	18.30
SF25X500	500	250	20.13	18.30
SF25X600	600	250	20.13	18.30
SF50P35	35	500	6.60	6.00
SF50P40	40	500	6.60	6.00
SF50P45	45	500	6.60	6.00
SF50P50	50	500	6.60	6.00
SF50P60	60	500	6.60	6.00
SF50P70	70	500	8.11	7.38
SF50P80	80	500	8.11	7.38
SF50P90	90	500	8.11	7.38
SF50P100	100	500	8.11	7.38
SF50P125	125	500	12.54	11.40
SF50P150	150	500	12.54	11.40
SF50P175	175	500	12.54	11.40
SF50P200	200	500	12.54	11.40
SF50P250	250	500	16.94	15.40
SF50P300	300	500	16.94	15.40
SF50P350	350	500	16.94	15.40
SF50P400	400	500	16.94	15.40
SF50P450	450	500	28.60	26.00
SF50P500	500	500	28.60	26.00
SF50P550	500	500	28.60	26.00
SF50P600	600	500	28.60	26.00
SF50P700	700	500	47.30	43.00
SF50P800	800	500	47.30	43.00
SF60C5	5	600	6.38	5.80
SF60C10	10	600	6.38	5.80
SF60C15	15	600	$ 6.38	$ 5.80
SF60C20	20	600	6.38	5.80
SF60C25	25	600	6.38	5.80
SF60C30	30	600	6.38	5.80
SF60C35	35	600	8.30	7.55
SF60C40	40	600	8.30	7.55
SF60C45	45	600	8.30	7.55
SF60C50	50	600	8.30	7.55
SF60C60	60	600	8.30	7.55
SF60C70	70	600	10.67	9.70
SF60C80	80	600	10.67	9.70
SF60C90	90	600	10.67	9.70
SF60C100	100	600	10.67	9.70
SF60C125	125	600	15.51	14.10
SF60C150	150	600	15.51	14.10
SF60C175	175	600	15.51	14.10
SF60C200	200	600	15.51	14.10
SF60C225	225	600	23.92	21.75
SF60C250	250	600	23.92	21.75
SF60C300	300	600	23.92	21.75
SF60C350	350	600	23.92	21.75
SF60C400	400	600	23.92	21.75
SF60C450	450	600	42.90	39.00
SF60C500	500	600	42.90	39.00
SF60C600	600	600	42.90	39.00
SF60C700	700	600	55.55	50.50
SF60C800	800	600	55.55	50.50
SF60X5	5	600	6.99	5.80
SF60X10	10	600	6.99	5.80
SF60X15	15	600	6.99	5.80
SF60X20	20	600	6.99	5.80
SF60X25	25	600	6.99	5.80
SF60X30	30	600	6.99	5.80
SF60X35	35	600	8.30	7.55
SF60X40	40	600	8.30	7.55
SF60X50	50	600	8.30	7.55
SF60X60	60	600	8.30	7.55
SF60X70	70	600	10.67	9.70
SF60X80	80	600	10.67	9.70
SF60X90	90	600	10.67	9.70
SF60X100	100	600	10.67	9.70
SF60X125	125	600	15.51	14.10
SF60X150	150	600	15.51	14.10
SF60X175	175	600	15.51	14.10
SF60X200	200	600	15.51	14.10
SF60X250	250	600	23.92	21.75
SF60X300	300	600	23.92	21.75
SF60X350	350	600	23.92	21.75
SF60X400	400	600	23.92	21.75
SF60X450	450	600	42.90	39.00
SF60X500	500	600	42.90	39.00
SF60X600	600	600	42.90	39.00
SF70P10	10	700	4.07	3.70
SF70P15	15	700	4.07	3.70
SF70P20	20	700	4.07	3.70
SF70P25	25	700	4.07	3.70
SF70P30	30	700	4.07	3.70
SF70P35	35	700	9.90	9.00
SF70P40	40	700	9.90	9.00
SF70P50	50	700	9.90	9.00
SF70P60	60	700	9.90	9.00
SF70P70	70	700	13.09	11.90
SF70P80	80	700	13.09	11.90
SF70P90	90	700	13.09	11.90
SF70P100	100	700	13.09	11.90
SF70P125	125	700	16.94	15.40
SF70P150	150	700	16.94	15.40
SF70P175	175	700	16.94	15.40
SF70P200	200	700	16.94	15.40
SF70P250	250	700	29.14	26.50
SF70P300	300	700	29.14	26.50
SF70P400	400	700	29.14	26.50
SF70P500	500	700	52.80	48.00
SF70P600	600	700	52.80	48.00
SF70P800	800	700	63.80	58.00

EUROPEAN TYPE FUSES

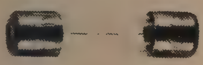
These fuses are standard in equipment which has been manufactured overseas. Some U.S. manufacturers also use these fuses.

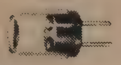
I-R No.	Ratings		Net Each, Lots	
	Amps	Volts	1-9	10-24
A350-5	5	250	$ 2.53	$ 2.41
A350-10	10	250	2.53	2.41
A350-15	15	250	2.53	2.41
A350-20	20	250	2.53	2.41
T350-150	150	250	17.58	16.75
T350-200	200	250	17.58	16.75
T350-250	250	250	17.58	16.75
T350-300	300	250	17.58	16.75
T350-350	350	250	17.58	16.75
L350-7	7	250	5.71	5.43
L350-10	10	250	5.71	5.43
L350-12	12	250	5.71	5.43
L350-16	16	250	5.71	5.43
L350-25	25	250	6.93	6.60
L350-30	30	250	6.93	6.60
L350-35	35	250	6.93	6.60
L350-60	60	250	6.93	6.60
L350-75	75	250	6.93	6.60
L350-100	100	250	8.03	7.65
L350-125	125	250	8.03	7.65
L350-160	160	250	8.03	7.65
L350-175	175	250	8.03	7.65
TT350-400	400	250	40.11	38.20
TT350-500	500	250	40.11	38.20
TT350-600	600	250	40.11	38.20
TT350-700	700	250	41.08	39.12
B1000-5	5	700	2.91	2.77
B1000-10	10	700	2.91	2.77
B1000-15	15	700	2.91	2.77
B1000-20	20	700	2.91	2.77
EE1000-65	65	700	16.41	15.62
EE1000-75	75	700	16.41	15.62
EE1000-90	90	700	16.41	15.62
EE1000-110	110	700	18.01	17.16
EE1000-150	150	700	18.01	17.16
MM1000-175	175	700	41.95	39.95
MM1000-200	200	700	41.95	39.95
MM1000-235	235	700	45.44	43.28
MM1000-275	275	700	45.44	43.28
MM1000-290	290	700	45.44	43.28
MM1000-300	300	700	51.28	48.84
MM1000-350	350	700	51.28	48.84
MM1000-400	400	700	51.28	48.84
MM1000-500	500	700	51.28	48.84
E1000-8	8	700	6.23	5.94
E1000-12	12	700	6.23	5.94
E1000-15	15	700	6.23	5.94
E1000-20	20	700	6.23	5.94
E1000-25	25	700	8.66	8.25
E1000-30	30	700	8.66	8.25
E1000-40	40	700	8.66	8.25
E1000-45	45	700	8.66	8.25
E1000-55	55	700	8.66	8.25
E1000-75	75	700	9.35	8.91
M1000-150	150	700	23.23	21.12
M1000-190	190	700	23.23	21.12
M1000-200	200	700	25.29	24.09
M1000-250	250	700	25.29	24.09

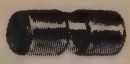
OUR STOCKS ARE FULLY UP TO DATE WITH ALL THE LATEST PRODUCTS.
ASK ABOUT NEW OR UNLISTED ITEMS.

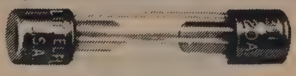
LITTELFUSE® Tracor

QUALITY FUSES

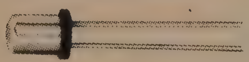

5 mm × 20 mm Fuses

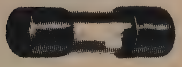

Microfuse (273 Series)

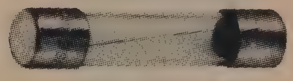

1AG (301 Series)


3AG 32 V (311 Series)

Picofuse (Axial leads)


Microfuse (278 Series)


7AG (303 Series)


3AG 250 V (312 Series)

5 × 20 MM SUBMINIATURE FUSES

A must for servicing European electronic equipment. **Size:** 5 mm × 20 mm (.2″ × .8″).

MEDIUM ACTING (250 V) TYPE M

Blow Time: 1/32 thru 1/10 amp—100%, life; 210%, 2 min. max.; 400%, 0.04 to 0.50 sec. ⅛ thru 1-¼ amp—100%, life; 210%, 2 min. max.; 400%, 0.06 to 2.00 sec. 1/6 thru 5 amps—100%, life; 210%, 30 min. max.; 400%, 0.06 to 2.00 sec.

211.031 thru 211.100—Net per 5............**$19.60**
Net Each; 1-99............**$3.92**
100-499............**$2.94**
211.200 thru 211005—Net per 5............**$4.74**
Net each; 1-99............**$0.948**
100-499............**$0.711**

L.F. No	Amp Rtg.	L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
211.031	1/32	211.600	6/10	211004	4
211.100	1/10	211.800	8/10	211005	5
211.200	2/10	211001	1		
211.250	¼	2111.25	1-¼		
211.300	3/10	21101.6	1-6/10		
211.400	4/10	211002	2		
211.500	1/2	211003	3		

FAST ACTING (250 V) TYPE F

Blow Time: 1/10 thru 6 amps—100%, life; 210%, 30 min. max.; 400%, 0.3 sec. max.

L.F. No.	Amp Rating	Net per 5	Net Each, Lots of 1-99	Net Each, Lots of 100-499
212.100	1/10	$4.62	$924.00	$770.00
212.125	⅛	4.62	924.00	770.00
212.200	2/10	4.62	924.00	770.00
212.250	¼	3.60	720.00	600.00
212.315	.315	3.60	720.00	600.00
212.400	4/10	3.60	720.00	600.00
212.500	½	3.60	720.00	600.00
212.630	.630	3.60	720.00	600.00
212.700	7/10	3.60	720.00	600.00
212.800	8/10	3.60	720.00	600.00
212001	1	3.21	642.00	535.00
2121.25	1-¼	3.21	642.00	535.00
21201.6	1-6/10	3.21	642.00	535.00
212002	2	3.21	642.00	535.00
21202.5	2-½	3.21	642.00	535.00
212003	3	3.21	642.00	535.00
212004	4	3.21	642.00	535.00
212005	5	3.21	642.00	535.00
21206.3	6.3	3.21	642.00	535.00

SLO BLO FUSES (250 V) TYPE T

Blow Time: 1/10 thru 1-¼ amp—100%, life; 210%, 2 min.-max.; 400%, 0.3 to 2 sec. 1-6/10 thru 6 amps—100%, life; 210%, 30 min. max.; 400%, 0.3 to 3 sec.

213.100 thru 211.800—Net per 5............**$7.65**
Net Each; 1-99............**$1.53**
100-499............**$1.15**
213001 thru 213006—Net per 5............**$4.78**
Net Each; 1-99............**$0.956**
100-499............**$0.717**

L.F. No	Amp Rtg.	L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
213.100	1/10	213.630	.630	21302.5	2-½
213.125	⅛	213.700	7/10	2133.15	3.15
213.200	2/10	213.800	8/10	213004	4
213.250	¼	213001	1	213005	5
213.300	3/10	2131.25	1-¼	21306.3	6-3/10
213.400	4/10	21301.6	1-6/10		
213.500	½	213002	2		

For PC and other min. space uses. Plug-in types use holder; pigtail types for soldering. Short circuit interrupting capacity 125 V, 10,000 amps AC. **Blow Specs:** 100%, 4-hour min.; 200%, 5-sec. max. **Size:** ¼″ dia. × 11/32″ (fuse body). Plug-in, transparent cap type listed. Use prefix **272** for plug-in, metal cap; prefix **279** for pigtail, transparent cap; prefix **278** for pigtail, metal cap. **UL Recognized.**

Plug-In L.F. No.	Amp Rating	Net per 5	Net Each, Lots of 1-99	Net Each, Lots of 100-499
273.002	1/500	$28.70	$5.74	$4.31
273.005	1/200	28.70	5.74	4.31
273.010	1/100	28.70	5.74	4.31
273.015	1/64	28.70	5.74	4.31
273.031	1/32	28.70	5.74	4.31
273.050	1/20	11.20	2.24	1.68
273.062	1/16	11.20	2.24	1.68
273.100	1/10	11.20	2.24	1.68
273.125	⅛	11.20	2.24	1.68
273.200	2/10	11.20	2.24	1.68
273.250	¼	11.20	2.24	1.68
273.300	3/10	11.20	2.24	1.68
273.400	4/10	11.20	2.24	1.68
273.500	½	11.20	2.24	1.68
273.600	6/10	11.20	2.24	1.68
273.700	7/10	11.20	2.24	1.68
273.750	¾	11.20	2.24	1.68
273.800	8/10	11.20	2.24	1.68
273001	1	11.20	2.24	1.68
27301.5	1-½	11.20	2.24	1.68
273002	2	11.20	2.24	1.68
273003	3	11.20	2.24	1.68
273004	4	11.20	2.24	1.68
273005	5	11.20	2.24	1.68

SUBMINIATURE PICOFUSES (125 V)

Blow Time: 4 hours minimum at 100% of rating; 5 secs. max. at 200%. Amperage printed on body; can be color-coded at additional cost. Ceramic body only 9/32″ lg. × 5/64″ dia.; tin-coated copper leads .025″ dia. Order **275** (prefix) for axial leads 1 9/16″ long for diode clip or in-circuit mounting; **276** for radial leads 1⅜″ long for use in printed circuits or receptacles. **UL Recognized thru 10 amps.**

275.062 thru 275.500—Net per 5............**$7.10**
Net Each; 1-99............**$1.42**
100-499............**$1.07**
275.750 thru 275010—Net per 5............**$6.35**
Net Each; 1-99............**$1.27**
100-499............**$0.954**
275012 thru 275015—Net per 5............**$7.50**
Net each; 1-99............**$1.50**
100-499............**$1.13**

L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.	L.F. No.	Amp Rtg.
275.062	1/16	27501.5	1-½	275007	7
275.125	⅛	275002	2	275010	10
275.250	¼	27502.5	2-½	270512	12*
275.375	⅜	275003	3	275015	15*
275.500	½	27503.5	3-½	275020	20*
275.750	¾	275004	4	275025	25*
275001	1	275005	5	275030	30*

*32 volt.

1AG FUSES (32 V)

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 10-sec. max. Lg. ⅝″, dia. ¼″.

L.F. No.	Amp Rating	Net per 5	Net Each, Lots of 1-99	Net Each, Lots of 100-499
301001	1	$1.54	$0.308	$0.231
30101.5	1-½	1.54	.308	.231
301002	2	1.54	.308	.231
301005	5	1.06	.212	.159
301006	6	1.06	.212	.159
30107.5	7-½	1.06	.212	.159
301010	10	1.06	.212	.159
301015	15	1.06	.212	.159
301020	20	1.06	.212	.159
301025	25	1.06	.212	.159
301030	30	1.06	.212	.159

Blow Time: 110%, 4-hr. min.; 135%, 1 hr. max.; 200%, 10-sec. max. Lg. ⅞″, dia. ¼″.

L.F. No.	Amp Rating	Net per 5	Net Each, Lots of 1-99	Net Each, Lots of 100-499
303001	1	$1.42	$ .284	$ .213
30301.5	1-½	1.42	.284	.213
30302.5	2-½	1.42	.284	.213
303003	3	1.42	.284	.213
303004	4	1.42	.284	.213
303005	5	1.42	.284	.213
303006	6	1.42	.284	.213
303015	15	1.06	.212	.159
303020	20	1.06	.212	.159
303030	30	1.06	.212	.159

SFE AUTO FUSES (32 V)

Blow Time: 110%, 4-hour min.; 135%, 0-1 hour; 150%, 20 amps or less 0-15 sec., 30 amps 0-30 sec. Dia. ¼″. **UL Listed.**

307004	4	⅝	$1.22	$ .244	$ .183
307006	6	¾	1.22	.244	.183
30707.5	7½	⅞	.980	.196	.147
307009	9	⅞	.980	.196	.147
307014	14	1 1/16	.980	.196	.147
307020	20	1¼	.980	.196	.147
307030	30	1 7/16	1.34	.268	.201

3AG FUSES (32 V)

Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 10-sec. max. Length 1¼″, dia. ¼″. **UL Listed thru 30 amps.**

311004	4	$1.26	$ .252	$ .189
311005	5	1.08	.216	.162
311006	6	1.08	.216	.162
311007	7	1.08	.216	.162
31107.5	7-½	1.08	.216	.162
311008	8	1.08	.216	.162
311010	10	1.08	.216	.162
311012	12	1.08	.216	.162
311015	15	1.08	.216	.162
311025	25	1.08	.216	.162
311030	30	1.08	.216	.162
311035	35	1.18	.236	.177

3AG FUSES (250 V)

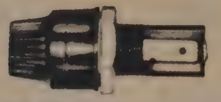
Blow Time: 110%, 4-hour min.; 135%, 1 hour max.; 200%, 5-sec. max. Length 1¼″, dia. ¼″. **UL Listed and CSA certified thru 8 amps.**

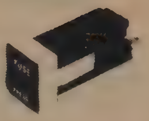
312.010	1/100	$13.70	$2.74	$2.06
312.031	1/32	11.00	2.20	1.65
312.062	1/16	4.00	.800	.600
312.100	1/10	4.00	.800	.600
312.125	⅛	4.00	.800	.600
312.150	15/100	4.00	.800	.600
312.175	.175	4.00	.800	.600
312.187	3/16	4.00	.800	.600
312.200	2/10	4.00	.800	.600
312.250	¼	2.42	.484	.363
312.300	3/10	2.42	.484	.363
312.375	⅜	2.42	.484	.363
312.500	½	2.42	.484	.363
312.600	6/10	2.42	.484	.363
312.750	¾	2.42	.484	.363
312001	1	1.24	.248	.186
3121.25	1-¼	1.24	.248	.186
31201.5	1-½	1.24	.248	.186
31201.6	1-6/10	1.24	.248	.186
312002	2	1.24	.248	.186
31202.5	2-½	1.24	.248	.186
312003	3	1.24	.248	.186
312004	4	1.98	.396	.297
312005	5	1.98	.396	.297
312006	6	1.98	.396	.297
312007	7*	2.14	.428	.321
312008	8*	2.74	.548	.411
312010	10*	2.74	.548	.411

*125 volt.

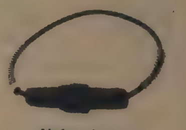
LITTELFUSE® Tracor

FUSEHOLDERS


3AG Miniature Quick-Connect Fuseholder


3AG Low Profile Fuseholder

Bakelite In-Line Fuseholder


Nylon In-Line Fuseholder

3AG Indicating Fuseholder

3AG Shock-Safe Fuseholder (Hardware Included)

3AG Indicating Low Profile

No. 571007 Fuseholder for $^{13}/_{32}$" Diameter Fuses

3AG QUICK-CONNECT FUSEHOLDERS WITH $^{3}/_{16}$" TERMINALS

Identical to 3AG Miniature Fuseholders on the previous page, but with Q.C. terminals. **Rated at 20 amps to 250 volts. UL Recognized and Certified by CSA.** All holders include hardware.

L.F. No.	Type
342028A	Fluted knob, right angle terminal
342038A	Fluted knob, straight terminals
342048A	Knurled knob, right angle terminals
342058A	Knurled knob, straight terminals

Net Each; Lots of 1-99 .... **$2.00**
100-499 .... **$1.50**
Note: For fuseholders with ¼" Q.C. terminals, use 342 800 Series. Example: 342828A.

3AG INDICATING FUSEHOLDERS 344(000) SERIES

For visual indication of a blown fuse. Incandescent or neon lamps. Supplied with resistor and hardware. **Rated at 20 amps to 250 volts. Certified by CSA.**

L.F. No.	Voltage	Net Each, Lots of 1-99	Net Each, Lots of 100-499
344006A	2½-7 V	**$12.04**	**$9.03**
344012A	7-16 V	**12.04**	**9.03**
344024A	16-32 V	**12.04**	**9.03**
344125A*	100-125 V	**9.14**	**6.85**
344250A	200-250 V	**9.14**	**6.85**

***UL Recognized.**

3AG INDICATING FUSEHOLDERS 344(000) SERIES

Same as 344(000) Series but with different lens style.

344401A	2½-7 V	**$12.04**	**$9.03**
344402A	7-16 V	**12.04**	**9.03**
344403A	16-32 V	**12.04**	**9.03**
344404A	100-125 V	**9.14**	**9.14**
344405A*	200-250 V	**9.14**	**9.14**

***UL Recognized.**

3AG "SHOCK SAFE" FUSEHOLDERS

Designed to meet standards set by the International Electrotechnical Commission. Used in equipment designed for sale in the European market. Absolute protection against electrical shock. **Rated at 20 amps to 300 volts. UL Recognized. Certified by CSA.** Hardware included.

345001A	Right-angle terminals	**$2.78**	**$2.09**
345002A	Straight	**2.78**	**2.09**

3AG LOW PROFILE FUSEHOLDERS

Square cap fuseholder snaps into chassis, eliminating need for mounting hardware. The cap snaps open for quick and easy fuse insertion and removal. Aesthetically styled to complement modern instrument panels.

UL Recognized. Certified by CSA. Rated at 15 amps to 250 volts. Order body and cap assemblies separately.

LOW PROFILE BODY ASSEMBLIES

L.F. No.*	Bezel Color	Net Each, Lots of 1-99	Net Each, Lots of 100-499
348610	Red	**$1.82**	**$1.37**
348620	Green	**1.82**	**1.37**
348630	Yellow	**1.82**	**1.37**
348640	Blue	**1.82**	**1.37**
348650	White	**1.82**	**1.37**
348670	Black	**1.82**	**1.37**
348690	Gray	**1.82**	**1.37**

*For ¼" Q.C. terminals, change the **6** to **8**; example, **348810.**

LOW PROFILE CAPS

L.F. No.	Color	Net Each, Lots of 1-99	Net Each, Lots of 100-499
348001	Red	**$.504**	**$.378**
348002	Green	**.504**	**.378**
348003	Yellow	**.504**	**.378**
348004	Blue	**.504**	**.378**
348005	White	**.504**	**.378**
348007	Black	**.504**	**.378**
348009	Gray	**.504**	**.378**

INDICATING LOW PROFILE FUSEHOLDERS

Similar to above, except holders are supplied with an indicating lamp that lights when the fuse blows. Standard body and bezel are black. Other bezel colors available to special order. Rated at 15 amps to maximum lamp voltage. *To order with ¼" Q.C. terminals, change the **6** to **8**; example, **344801.**

L.F. No.*	Lamp Volts	Lamp mamps	Resistor	Lens Color
		INCANDESCENT		
344601	6	40	No	Amber
344602	14	80	No	Amber
344603	28	40	No	Amber

Net Each; Lots of 1-99 .... **$8.22**
100-499 .... **$6.17**

L.F. No.*	Lamp Volts	Lamp mamps	Resistor	Lens Color
		NEON		
344604	120	1.2	Yes	Clear
344605	240	.3	Yes	Clear

Net Each; Lots of 1-99 .... **$6.16;**
100-499 .... **$4.62**

8AG PANEL FUSEHOLDERS

Similar to the 3AG Panel Fuseholders (No. 341001A and 342001A) shown on preceding page, but designed for use with 8AG fuses. **Rated at 15 amps to 250 volts.** Hardware included. **UL Recognized and CSA Certified.**

L.F. No.	Type	Net Each, Lots of 1-99	Net Each, Lots of 100-499
371001A	Screw	**$4.06**	**$3.05**
372001A	Finger	**4.06**	**3.05**

No. 571007 PANEL FUSEHOLDER FOR $^{13}/_{32}$" DIAMETER FUSES

Versatile fuseholder designed for use with $^{13}/_{32}$" diameter fuses with lengths between 1⅜" and 1½", including the popular 5AG and 5AB types. **Rated at 30 amps up to 600 volts.** ¼" Q.C./solder terminals. **UL Recognized. CSA Certified.**
Other features include:

- Minimum rear panel projection and reduced overall length.
- One-piece knob insert and one-piece side terminal for improved electrical performance.
- Recessed side terminal for additional shock-safe characteristics.
- Non-movable bottom terminal to eliminate circuit wiring flexing and permit easier fuse installation.
- ¾" spacing between mounting flange and terminals to accommodate even the thickest panels.
- Engraved, ink-filled knob markings for clear, permanent identification.
- **Watertight version—#571007P.**

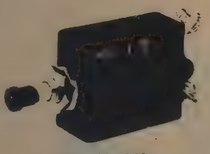
#571007—
Net Each; Lots of 1-99 .... **$3.72;**
100-499 .... **$2.79**
#571007P—
Net Each; Lots of 1-99 .... **$3.92;**
100-499 .... **$2.94**

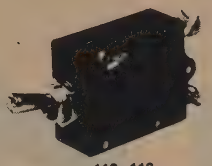
5 × 20 MM FUSEHOLDERS

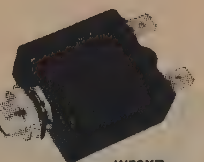
Panel fuseholders with V.D.E. Approval up to 6.3 amperes, 250 volts, for use with 5 × 20 mm fuses. Holders have solder terminals. Maximum panel thickness: $^{3}/_{16}$".

L.F. No.	Type	Net per 1000, Lots of 1-99	Net per 1000, Lots of 100-499
345401	Bayonet style knob	**$2910.00**	**$2425.00**
345402	Finger grip screw type knob	**2376.00**	**1980.00**

THERMAL CIRCUIT BREAKERS


109, 110, 842


112, 113, 548


W58XB

114

W28

MODELS 109 AND 110

Models 109 and 110 thermal circuit breakers feature a white band on the body of the reset button which becomes visible upon breaker trip. Maximum operating voltages are 50 VDC and 250 VAC (to 400 Hz). Interrupt capacity for Model 109 is 1000 amps at 125 VAC or 2000 amps at 50 VDC; 2000 amps at 250 VAC or 3500 amps at 50 VDC for Model 110. Use #8-32 screw terminals and mount with one 3⁄8-24 dress nut. Model 109 has screw terminals situated at 90° to each other. Model 110 has screw terminals situated parallel to each other. Size, .690″ w. × 1.600″ d. × 1.375″ h. Weight, less than 2 oz. CSA & UL recognized.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
109-205-101	5	$9.63	109-235-101	35	$ 9.85
109-507-101	7.5	9.63	109-240-101	40	9.85
109-210-101	10	9.63	109-250-101	50	9.85
109-215-101	15	9.63	109-260-101	60	10.78
109-220-101	20	9.63	110-205-101	5	10.89
109-225-101	25	9.85	110-210-101	10	10.89
109-230-101	30	9.85			

MODEL 842

Model 842 thermal circuit breaker insures fast trip by employing a heater wire in close proximity to the thermal contact arm. Heat generated by overload currents flowing through the wire quickly activates the thermal contact and opens the circuit. Maximum operating voltages are 32 VDC and 250 VAC (to 400 Hz). Interruption capacity is over 1000% of current rating. Has #8-32 screw terminals and mounts with a single 3⁄8-24 dress nut. Size, .690″ w. x 1.600″ d. x 1.375″ h. Weight, less than 2 oz.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
842-201-101	1	$18.10	842-203-101	3	$18.10
842-202-101	2	18.10	842-204-101	4	18.10

MODELS 112, 113 and 548

Models 112, 113 and 548 thermal circuit breakers feature toggle trip. Model 112 has a nickel-plated brass toggle with rating marked on the end. Model 113 has a chrome-plated toggle with rating marked on the end. Model 548 has a silver toggle with no rate marking. Maximum operating voltages are 50 VDC and 250 VAC (to 400 Hz). Interrupt capacity for Model 112 is 1000 amps at 125 VAC or 2000 amps at 50 VDC for Models 113 and 548. Use #8-32 screw terminals and mount with a single dress nut. Size, .690″ w. x 1.600″ d. x 1.375″ h. Weight, less than 2 oz. UL recognized/CSA certified.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
112-205-101	5	$12.16	112-250-101	50	$12.65
112-507-101	7.5	11.99	113-205-101	5	17.00
112-210-101	10	12.21	113-507-101	7.5	17.00
112-215-101	15	12.38	113-210-101	10	17.00
112-220-101	20	12.38	113-215-101	15	17.00
112-225-101	25	12.65	113-220-101	20	17.00
112-230-101	30	12.65	548-205-107	5	14.52
112-235-101	35	12.65	548-210-107	10	14.80
112-240-101	40	12.65			

MODEL 114

Model 114 thermal circuit breaker features auxiliary SPDT switch electrically isolated but mechanically connected to the breaker circuit. SPDT contacts rated 3 amps at 120 VAC or 50 VDC. Maximum operating voltages are 32 VDC and 240 VAC (to 400 Hz). Interruption capacity is over 200 amps at 240 VAC and 1000 amps at 32 VDC. Mounts with two #6-32 panel-mount screws. Termination of breaker contacts is to two #6-32 screw terminals; of the auxiliary switch, to three #53 taper receptacles. Size, .930″ w. x 1.875″ d. x 1.344″ h. Weight, less than 3 oz. UL Recognized. CSA certified.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
114-201-101	1	$45.93	114-210-101	10	$45.93
114-202-101	2	46.53			

SERIES W58

Thermal circuit breakers feature recessed reset button which cannot be manually pulled out to disconnect the circuit. The button has a red band around it for visible trip indication. Maximum voltage ratings are 250 VAC and 50 VDC. Interruption capacity: 2000 amps at 50 VDC; 1000 amps at 250 VAC; all models. Quick-connect terminals on Models W58XB; #6-32 terminals on Models W58XC. Mounting is with knurled thumb on bushing. Size, .660″ w. x 1.375″ d. x 1.375″ h. Weight, less than 1.5 ozs. Models from 1 to 20 amps are UL Recognized under File E39205 and certified under CSA File 30671.

Model W58XB, 1 to 4 amps—Net Each	**$4.54**
Model W58XB, 5 to 35 amps—Net Each	**2.92**
Model W58XC, 1 to 4 amps—Net Each	**6.55**
Model W58XC, 5 to 35 amps—Net Each	**4.93**

P & B Model W58-	Rating Amps	P & B Model W58-	Rating Amps	P & B Model W58-	Rating, Amps
XB1A4A-1	1	XB1A4A-15	15	XC4C12A-6	6
XB1A4A-2	2	XB1A4A-20	20	XC4C12A-7	7
XB1A4A-3	3	XB1A4A-25	25	XC4C12A-8	8
XB1A4A-4	4	XB1A4A-30	30	XC4C12A-10	10
XB1A4A-5	5	XB1A4A-35	35	XC4C12A-12	12
XB1A4A-6	6	XC4C12A-1	1	XC4C12A-15	15
XB1A4A-7	7	XC4C12A-2	2	XC4C12A-20	20
XB1A4A-8	8	XC4C12A-3	3	XC4C12A-25	25
XB1A4A-10	10	XC4C12A-4	4	XC4C12A-30	30
XB1A4A-12	12	XC4C12A-5	5	XC4C12A-35	35

SERIES W28

W28 series circuit breakers are UL 1077 recognized as Supplementary Protectors, File E69543 and CSA certified as Appliance Component Protectors, File LR30671. Convenient, inexpensive alternate to twist-cap, panel mounted fuse holders and glass cartridge fuses. Single pole, thermal-type breakers occupy the same amount of space as fuse holders, and securely snap into standard panel cutouts from front of panel. Reset button can not be pulled out manually to disconnect circuit. When an overload occurs, and the breakers open, the reset button and a white indicator extend for visual trip indication. A trip-free feature allows the contacts to open even if the reset button is held manually against an overload. Max. operating voltage, 32 VDC or 250 VAC. **Interrupt Capacity:** 0.25 to 2 amp models, 6 times rated current; 3 to 15 amp models, 10 times rated current. **Reset Time:** 10-60 sec. Quick-Connect terminals on all models. Weight: approx. 0.35 oz.

Model W28XQ, 0.25 to 2 amps—Net Each	**$4.60**
Model W28XQ, 3 to 15 amps—Net Each	**2.60**

P & B Model W28-	Rating Amps	P & B Model W28-	Rating Amps	P & B Model W28-	Rating Amps
XQ1A-0.25	0.25	XQ1A-3	3	XQ1A-10	10
XQ1A-0.5	0.5	XQ1A-5	5	XQ1A-12	12
XQ1A-1	1.0	XQ1A-7	7	XQ1A-15	15
XQ1A-2	2.0	XQ1A-8	8		

TRIP TIME vs. PERCENT OF LOAD

P & B Model	Trip Time in Sec. at 200% of Load	P & B Model	Trip Time in Sec. at 200% of Load
109	6–20	W28XQ, 0.25-2A	4.5–20
110	6–10		
112	6–20	W28XQ, 3-15 A	2.2–15
113	6–20		
114	13–30	W58XB, 1-4 A	10–45
436	15–55		
492	15–55	W58XB, 5-35 A	6–30
507	15–55		
548	6–20	W58XC, 1-4 A	10–45
842	11–42		
		W58XC, 5-35 A	6–30

PRICES SHOWN ARE FOR REFERENCE ONLY

W91 W92 W93

W67 W68 W69

MAGNETIC/HYDRAULIC CIRCUIT BREAKERS SERIES W67, W68, W69, W91, W92, W93

Magnetic-hydraulic circuit breakers designed to pass safe surge currents and momentary overloads but to trip on dangerous overloads. Trip times range from instantaneous on loads of approximately 800% of rating and higher to 20 seconds or more at 200% of load. Breakers may trip between values greater than 100% and less than 125% of rated load, but must trip at 125% of rated load and above. All models feature wipe on make and break and have a trip-free mechanism which allows the contacts to open even if manually held in the reset position. On 2- and 3-pole models, an overload in any circuit will open all circuits. All models are UL recognized as circuit protectors, File 39205, and CSA recognized as appliance component protectors, File 30671. Models W91, W92 and W93 breakers mount with #6-32 screws and have #10-32 terminal studs. **Size:** W91, .750" w. x 1.844" d. x 2.500" h.; W92, 1.500" w. x 1.844" d. x 2.500" h.; W93, 2.250" w. x 1.844" d. x 2.500" h. Models W67, W68 and W69 breakers offer an auxiliary SPDT switch electrically isolated, rated 5 amps at 125 VAC or 1 amp at 50 VDC, and has solder terminals. **Size:** W67, .750" w. x 1.500" d. x 2.000" h.; W68, 1.500" sq. x 2.000" h.; W69, 2.250" w. x 1.500" d. x 2.000" h. **Maximum Operating Voltages:** Models from 1 to 30 amps, 250 VAC, 50/60 Hz; models from 1 to 50 amps, 65 VDC. **Auxiliary Switch Rating:** SPDT common, 5 amps at 125 VAC, 1 amp at 50 VDC. **Interrupt Capacity:** 50 VDC: W67-W69, 2000 amps; 50 VDC: W91-W93, 3500 amps; 250 VAC, 60 Hz: W67-W69 and W91-W93, 5000 amps.

W	91	X1	1	2	15
A	B	C	D	E	F

A Circuit breaker designator
W

B Series number
91—single pole
92—double pole
93—triple pole

C Circuit function
X1—Series trip

D Voltage
1—AC
5—DC

E Trip curve
0—Instantaneous
2—Standard time delay
3—Short time delay

F Standard ampere rating*

1	5	15	30
2	7	20	40§
3	10	25	50§

P & B Model	Net Each, Lots of					
	1-9	10-49	50-99	100-249	250-499	500-Up
W91	$17.25	$11.21	$10.18	$ 9.14	$ 8.11	$ 7.59
W92	41.40	26.91	24.43	21.94	19.46	18.22
W93	64.90	42.19	38.29	34.40	30.50	28.56

*Not all ratings available in each trip curve. §Not UL or CSA in AC models.

MODEL 436

Model 436 thermal circuit breaker has a special magnet which assists during millisecond tripping of heavy overloads. Reset button has white band around it for visible trip indication. Maximum voltage ratings are 32 VDC and 115 VAC (to 400 Hz). Will safely interrupt over 3500 amps at 115 VAC, and 6000 amps at 32 VDC. Termination to #8-32 screw terminals; mounting is with #6-32 screws. Size, .750" w. x 1.66" d. x 2.189" h. Weight, less than 3 oz.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
436-205-101	5	$36.47	436-220-101	20	$36.58
436-210-101	10	35.31	436-225-101	25	36.58
436-215-101	15	35.37	436-250-101	50	38.12

P & B Model	Trip Time in Sec. at 200% of Load	P & B Model	Trip Time in Sec. at 200% of Load
436-	15–55	492-	15–55

Curve	Trip Time in Seconds at % overload				
	200%	400%	600%	800%	1000%
0*	.03‡	.015‡	.012‡	.012‡	....
2 AC†	2.2–20	.3–2	.05–.75	.007–.15	.005–.04
2 DC	.6–8	.15–1.5	.03–.5	.004–.05	.004–.025
3 AC†	.15–1.5	.035–.25	.01–.15	.003–.08	.003–.04
3 DC	.16–1.5	.035–.25	.012–.13	.004–.05	.003–.015

*Ratings for 50/60 Hz and DC. †Ratings for 50/60 Hz.
‡Maximum value.

ORDERING INFORMATION

W	67	A2Q	1	2	20
A	B	C	D	E	F

A Circuit breaker designator
W

B Series number
67—single pole
68—double pole
69—triple pole

C Circuit function
A2Q—series trip with auxiliary switch
X2Q—series trip

D Voltage
1—AC
6—DC

E Trip curve
0—Instantaneous
2—Standard time delay
3—Short time delay

F Standard ampere rating*

0.5	3	10	25
1	5	15	30
2	7	20	

P & B Model	Net Each, Lots of					
	1-9	10-49	50-99	100-249	250-499	500-Up
W67A All	$19.00	$12.85	$11.21	$10.07	$ 8.93	$ 8.36
W67X ½A	16.90	10.99	9.97	8.96	7.94	7.44
W67X Other	14.10	9.17	8.32	7.47	6.63	6.20
W68X All	33.60	21.84	19.82	17.81	15.79	14.78
W69X All	52.85	34.35	31.18	28.01	24.84	23.25

*Not all ratings available in each trip curve.

MODELS 492 AND 507

Models 492 and 507 thermal circuit breakers have a white band around the base of the reset button which becomes visible upon breaker trip. Model 492 has a glass melamine barrier on one side of its housing. Maximum operating voltages are 32 VDC and 115 VAC (to 400 Hz). Will safely interrupt over 3500 amps at 115 VAC and 6000 amps at 32 VDC. Size, .750" w. x 1.490" d. x 1.094" h. Weight, Less than 2 oz.

P & B Model	Rating Amps	Net Each	P & B Model	Rating Amps	Net Each
492-210-102	10	$30.02	507-220-101	20	$30.59
492-215-102	15	32.09	507-225-101	25	30.59
492-220-102	20	32.09	507-230-101	30	30.59
492-235-102	35	32.14	507-235-101	35	30.59
507-210-101	10	28.52	507-240-101	40	30.59
507-215-101	15	30.59	507-250-101	50	30.53

PRICES SHOWN ARE FOR REFERENCE ONLY

CMD5XXX SERIES SOLID STATE LED's

Low power consumption for IC compatibility and cool operation. Long life virtually eliminates replacement. Solid lens construction. Very intense light source; up to 45.0 mcd luminous intensity. Subminiature, T-1¾ size cylindrical lens. Silver-plated leads standard on all devices. Mounting clip No. CMP52 available for panel mounting. **Forward Voltage (at $I_f = 20$ mA):** Orange and red, 2 V typical, 3 V max.; yellow, 2.1 V typical, 3 V max.; green, 2.2 V typical, 3 V max. **Reverse Voltage (at $I_r = 100$ μA):** 25 V typical, 5 V min. **Response Time:** 50 nsec. **Capacitance (at 1 MHz, 0 VDC):** 45 pF. **Max. Continuous Forward Current:** 35 mA at 25° C. **Max. Power Dissipation:** 105 mW at 25° C. **Max. Power Dissipation Above 25° C:** −1.15 mW/°C. **Max. Peak Forward Current (1 μsec. pulse, 0.1% duty cycle):** 5 amps. **Storage and Operating Temperature Range:** −55° C to +100° C.

CML No.	Lens Tint	Material	Luminous Intensity @ $I_f = 20$ mA (mcd)		Typ. Viewing Angle
			Min.	Typ.	
CMD5752(4-282B)	Red†	GaAsP	17.0	40.0	28°
CMD5752(4-282B-2)	Red†	GaAsP	30.0	50.0	28°
CMD5754(4-283B)	Red	GaAsP	3.0	8.0	24°
CMD5753(4-284B)	Red	GaAsP	3.0	6.0	65°
CMD5753(4-284B-2)	Red	GaAsP	3.0*	8.0	65°
CMD5252(4-382B)	Green†	GaP	5.0	15.0	28°
CMD5252(4-382B-2)	Green†	GaP	12.0	20.0	28°
CMD5254(4-383B)	Green	GaP	0.9	3.0	24°
CMD5253(4-384B)	Green	GaP	0.8	1.5	65°
CMD5253(4-384B-2)	Green	GaP	2.2	3.0	65°
CMD5152(4-482B)	Orange†	GaAsP	17.0	40.0	28°
CMD5152(4-482B-2)	Orange†	GaAsP	30.0	50.0	28°
CMD5154(4-483B)	Orange	GaAsP	3.0	8.0	24°
CMD5153(4-484B)	Orange	GaAsP	3.0	6.0	65°
CMD5153(4-484B-2)	Orange	GaAsP	3.0*	8.0	65°
CMD5352(4-582B)	Yellow†	GaAsP	16.0	45.0	28°
CMD5352(4-582B-2)	Yellow†	GaAsP	24.0	50.0	28°
CMD5354(4-583B)	Yellow	GaAsP	3.0	10.0	24°
CMD5353(4-584B)	Yellow	GaAsP	2.5	6.0	65°
CMD5353(4-584B-2)	Yellow	GaAsP	2.2*	4.0	65°

†Transparent; all others diffused. *Luminous intensity at I_f= 10 mA.

CML No.	Net Each, Lots of		
	10-99	100-499	500-999
CMD5152(4-482B)	$0.544	$0.48	$0.416
CMD5152(4-482B-2)	1.19	1.05	.91
CMD5153(4-484B)	.544	.48	.416
CMD5153(4-484B-2)	1.19	1.05	.91
CMD5154(4-583B)	.544	.48	.416
CMD5254(4-383B)	.544	.48	.416
CMD5352(4-582B)	.544	.48	.416
CMD5352(4-582B-2)	1.19	1.05	.91
CMD5353(4-584B)	.544	.48	.416
CMD5353(4-584B-2)	1.19	1.05	.91
CMD5354(4-583B)	.544	.48	.416
CMD5752(4-282B)	.544	.48	.416
CMD5752(4-282B-2)	1.19	1.05	.91
CMD5753(4-284B)	.391	.345	.299
CMD5753(4-284B-2)	1.19	1.05	.91
CMD5754(4-283B)	.391	.345	.299

CMD505X SERIES RED

Red gallium arsenide phosphide light-emitting diodes. Variety of lens styles and luminance intensities widens design choice. **Power Dissipation:** 180 mW (derate 2.0 mW/°C. above 25°C). **Forward Voltage:** 1.7 volts typical at 20 mA, 2.2 volts max. **Reverse Voltage:** 5.0 volts. **Wavelength:** 660 mM at peak. **Turn On and Turn Off Time:** 50nS. **Size:** 0.2″ d. x 0.340″ lgth. plus two 0.75″ leads.

CML No.	Lens Tint	Luminous Intensity @ $I_f = 20$ mA Typical	Viewing Angle Typical
CMD5050(4-80B)	Clear*	2.0 mcd	50°
CMD5051(4-81B)	Clear*	1.6 mcd	72°
CMD5052(4-82B)	Red	2.0 mcd	50°
CMD5053(4-84B)	Red	1.6 mcd	80°
CMD5056(4-85B)	Red	0.8 mcd	110°
CMD5055(4-86B)	Red	0.8 mcd	150°

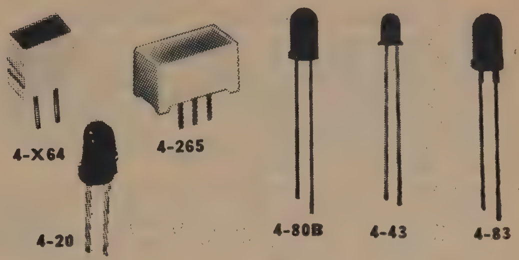
*Transparent; all others diffused.

Models CMD5050(4-80B), 5051(4-81B), and 5052(4-82B)—Net Each, Lots of: 10–99 .... **$0.459**
100–499 .... **$0.405**; 500–999 .... **.351**

Model CMD5053(4-84B)—Net Each, Lots of: 10–99 ... **$0.289**
100–499 .... **$0.255**; 500–999 .... **.221**

Model CMD5055(4-86B)—Net Each, Lots of: 10–99 ... **$0.357**
100–499 .... **$0.315**; 500–999 .... **.273**

Model CMD5056(4-85B)—Net Each, Lots of: 10–99 ... **$0.493**
100–499 .... **$0.435**; 500–999 .... **.377**



CMD5054 RED

The red diffused lens and T-1¾ size are ideally suited for panel and back-lighting applications. **Luminous Intensity:** 2.0 mcd at 10 mA. **Wavelength:** 660nM. **Power Dissipation:** 180 mW (derate 2.0 mW/°C above 25° C). **Forward Voltage:** 1.6 volts typical at 20 mA, 2.2 volts max. **Reverse Voltage:** 3.0 volts. **Turn On and Turn Off Time:** 50nS. **Size:** 0.2″ dia x 0.34″ length, plus two 0.85″ leads.

Model CMD5054-1—Net Each, Lots of: 10–99 .... **$0.391**
100–499 .... **$0.345**; 500–999 .... **.299**

CMD502X SERIES RED

Each unit supplied with snap-in mounting clip for panel mounting. Rigid terminals allow device to be connected in a variety of ways, soldered, welded or wire-wrapped, as well as being pluggable. Tin-plated leads. Choice of clear and red lenses, transparent or translucent. **Power Dissipation:** 180 mW (derate 2.0 mW/° C above 25° C). **Forward Voltage:** 1.6 volts typical at 20 mA, 2.0 volts max. **Reverse Voltage:** 3 volts. **Storage and Operating Temperature:** −55° C to +100° C. **Wavelength** 660 nM at peak. **Turn On and Turn Off Time:** 50 ns. **Soldering Time at 260° C:** 5 seconds. **Size:** .190″ dia. x .340″ length, plus two .55″ leads. **Hole for mounting clip:** ¼″ dia. **Max. Panel Thk.:** ⅛″.

CML No.	Lens Tint	Luminous Intensity @ $I_f = 20$ mA Typical	Viewing Angle Typical
CMD5020(4-20)	Clear*	2.0 mcd	90°
CMD5021(4-21)	Clear*	1.6 mcd	90°
CMD5022(4-22)	Red	1.6 mcd	90°
CMD5025(4-23)	Red	0.4 mcd	180°

*Transparent; all others diffused.

Models CMD5020(4-20), CMD5021(4-21), and CMD5022(4-22)—Net Each, Lots of: 10–99 .... **$0.731**
100–499 .... **$0.645**; 500–999 .... **.559**

Model CMD5025(4-23)—Net Each, Lots of: 10–99 ..... **$0.595**
100–499 .... **$0.525**; 500–999 .... **.455**

CMD5075C(4-83B) RED

The red diffused lens and T-1 size make this the perfect choice for high-density array and indicator applications. **Luminous Intensity:** 1.0 mcd at 20 mA. **Peak Wavelength:** 660 nM. **Power Dissipation:** 100 mW (derate 1.3 mW/°C above 25° C). **Forward Voltage:** 1.6 volts typical at 20 mA., 2.0 volts max. **Reverse Voltage:** 5.0 volts. **Turn On and Turn Off Time:** 50nS. **Size:** 0.120″ dia. max. x 0.2″ length, plus two 1.00″ min. leads.

Model CMD5075C(4-83B)—Net Each, Lots of: 10–99 .... **$0.34**
100–499 .... **$0.30**; 500–999 .... **.26**

CMD5X124 SERIES RECTANGULAR LED INDICATORS

Solid state LED lamps with .220″ x .125″ lighted area. Stackable in X or Y direction. High brightness; typically 4 mcd at 20 mA. Compact, rugged, lightweight. No light leakage from unit or sides. **Continuous Forward Current:** 35 mA max. at 25° C. **Power Dissipation:** 105 mW max. at 25° C; derated 1.15 mW/°C above 25° C. **Peak Forward Current (1 μsec. pulse, 1% duty cycle):** 300 pps, 1 amp. **Temperature Range:** −55° C to +100° C. **Solder Time (at 230° C):** 5 sec. Lens tint and light color are the same. Diffused lenses.

CML No.	Light Color	Typical Peak Wavelength (nm)	Luminous Intensity at $I_f = 20$ mA (mcd)	
			Min.	Typ.
CMD57124(4-264)	Red	635	1.0	4.0
CMD52124(4-364)	Green	565	1.0	3.0
CMD53124(4-564)	Yellow	585	1.0	4.0

Series CMD5X124—Net Each, Lots of: 10–99 .... **$0.697**
100–499 .... **$0.615**; 500–999 .... **.533**

CMD57173 SERIES RED LED INDICATORS

Solid-state LED lamps with .500″ x .250″ lighted area. Stackable in X or Y direction. Compact, rugged, lightweight. No light leakage from sides. **Luminous Intensity:** 4.5 mcd at 20 mA. **Max. Continuous Forward Current:** 35 mA per chip at 25° C. **Power Dissipation:** 200 mW at 25° C; derated, −4.3 mW/°C above 25° C. **Peak Forward Current (1 μsec pulse, 0.1% duty cycle):** 300 ps, 1 amp. **Storage Temperature:** −40° C to +100° C. **Operating Temperature:** −40° C to +85° C. Lens tint and light color are the same. Diffused lenses.

Series CMD57173—Net Each, Lots of: 10–99 .... **$1.989**
100–499 .... **$1.755**; 500–999 .... **1.521**

CML SERIES CARTRIDGE INDICATORS

Cartridge housings with incandescent or neon lamps; cool operating temperatures for long life. Mount in cartridge holder, or panel mounting with speed clip (not included). Clear anodized aluminum housings, nylon insulation, transparent or translucent polycarbonate (color matched to industrial standards) caps. Meet requirements of MIL-L-3661. Stainless steel pins are located off-center for polarization. Stainless steel pin terminals, or #24 AWG wire leads. Available with hot stamped legends; write for prices. **Body Size:** .284" dia. x .634" long.

HOW TO ORDER: Insert two interfixes in CML number, replacing **YX** shown in tables below. First interfix indicates cap style and terminal configuration: **Y-5,** flush cap with pin terminals; **Y-6,** short cylindrical cap with pin terminals. Second interfix indicates cap type: **X-3,** polycarbonate, transparent; or **X-4,** polycarbonate, translucent.

Also replace final **X** in CML number to indicate cap color: **1,** red; **2,** green; **3,** amber; or **7,** clear.

WITH T-1¾ INCANDESCENT LAMPS

CML No.* CML-	Volts	Amps	M.S. C.P., Approx.	Aver. Life, Hours	Net Each, Lots of*		
					10-99	100-499	500-999
YX013X	6.3	.20	.40	50,000	**$3.312**	**$2.898**	**$2.318**
YX008X	10.0	.04	.08	5,000	**3.312**	**2.898**	**2.318**
YX028X	14.0	.08	.30	50,000	**3.312**	**2.898**	**2.318**
YX029X	28.0	.04	.30	25,000	**3.312**	**2.898**	**2.318**

*See How To Order information above, and add two interfixes and suffix, as indicated.

No. CML-10380 Cartridge Indicator Mounting Clip—For mounting CML series indicators directly in panel, in 9⁄32" clearance hole. Spring tempered steel. Net Each. Lots of: 10–99 .... **$0.14**

No. CM21-3 Cartridge Indicator Connector—Accepts CML series indicators for low-cost mounting (not in panels). Phenolic body, cadmium plated brass contacts.

Net Each, Lots of: 10–99 .... **$0.58**

★WRITE FOR PRICES ON LARGER QUANTITIES

CML SERIES CARTRIDGE INDICATORS

Short Cylindrical

Flush Cap

CML SERIES CARTRIDGE HOLDERS

10202-1

10204-1

10203-1

CML SERIES CARTRIDGE HOLDERS

Panel mounting holders for T-1¾ or T-2 lamps. Body, collar and facing nut are black anodized aluminum. Molded phenolic insulation. Turret terminals are spring brass, gold over nickel plate; solder cup terminals are spring brass, tintilate plate. Types 10202-1 and 10203-1 have 3⁄32" thick knurled collar nut. Mount in round or "D" hole, .375" dia., in panels to 15⁄32" thick (when not using collar nut). Terminal pins are polarized.

CML No. CML-	Mounting	Terminals	Net Each, Lots of*		
			10-99	100-499	500-999
10202-1	Front/rear	Turret	**$2.624**	**$2.296**	**$1.837**
10203-1	Front/rear	Solder	**2.624**	**2.296**	**1.837**
10204-1	Front	Solder	**2.128**	**1.862**	**1.49**

SCOTCH® BRAND ELECTRICAL TAPE, SPRAY

NO. 33 VINYL PLASTIC ELECTRICAL TAPE

Proved and accepted for general purpose insulation. Excellent resistance to flame, abrasion, sunlight, moisture, alkalies, solvents, oil and many acids. Quick sticking; strong holding pressure-sensitive adhesive. Excellent stretch and conformability. Full electrical and mechanical protection with minimum bulk. Good "feel" for tight wrapping. Only .007" thick.

Size, W. x L.	Net Each Roll, Pkg of	
	1 Roll	10 Rolls
¾" x 66'*	**$1.99**	**$1.64**
1½" x 44'	**2.68**	**2.21**

*Available with plastic dispenser; order No. 33D; same prices.

Scotch
88
Scotch
88
3M

IVI-SPRAY® INSULATING ENAMEL

Electrical insulating enamel in 11-oz. pressurized spray can. Finds many applications in electronics and electrical insulation needs.

3M No. 1602 (Red), **1603** (Black)—Net Each.......... **$7.19**
In 10-can cartons, Net Each **5.48**

NO. 88 "ALL-WEATHER" VINYL PLASTIC TAPE

Thin (.0085"), tough electrical tape for general purpose "all-weather" insulation. Extra pliability and conformability at winter temperatures. Flame-retardant and resistant to abrasion, puncture, acids, alkalies, oil and weathering.

Size, W. x L.	No. Rolls per Ctn.	Net Each Roll, Pkg. of	
		1 Roll	10-Roll Ctn.
¾" x 66 ft.	10	**$2.15**	**$1.78**
¾" x 44 ft.	10	**1.50**	**1.24**
1½" x 44 ft.	10	**2.82**	**2.33**

NO. 27 GLASS CLOTH BACKED TAPE

Glass cloth backing and thermosetting adhesive for high heat area applications. Only .007" thick.

Size, W. x L.	No. Rolls per Ctn.	Net Each Roll, Pkg. of	
		1 Roll	10-Roll Ctn.
½" x 66 ft.	10	**$3.55**	**$2.71**
¾" x 66 ft.	10	**5.26**	**4.01**

®Registered trademark of 3M Co.

This is a partial listing of miniature and subminiature lamps. Miniature lamps are most commonly used in numerous applications for panel indicators, aircraft, flashlight and radio or TV pilot lights. The subminiature lamps were specifically designed for modern, up-to-date special equipment such as computers, miniature switches, medical electronic equipment, aircraft, aerospace, etc. Many other uses are met where the ultimate in precision miniature lamp techniques is demanded. Engineered to military specifications, they are used as standards on many classified government projects and business machines. Lamps listed herein are the most popular types available from Chicago Miniature. If your application requires a special lamp or one not shown, send us your application needs. We will be pleased to submit our recommendations.

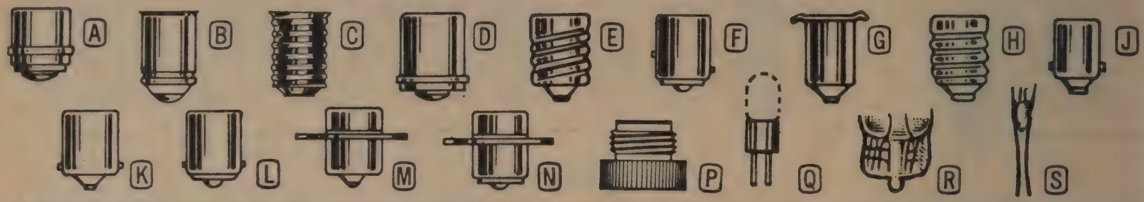
MINIATURE LAMPS

Lamp No.	Design		MSCP* Approx.	Base Fig.	Bulb	Net Ea., Lots of		
	V	A				10-99	100-499	500-999
PR-2	2.38	.50	.80	G§	B-3½	$0.46	$0.41	$0.35
PR-3*	3.57	.50	1.50	G§	B-3½	.46	.41	.35
PR-4	2.33	.27	.40	G§	B-3½	.46	.41	.35
PR-6*	2.47	.30	.45	G§	B-3½	.46	.41	.35
PR-7	3.70	.30	.90	G	B-3½	.46	.41	.35
PR-12	5.95	.50	3.10	G§	B-3½	.53	.47	.41
PR-13	4.75	.50	2.20	G§	B-3½	.53	.47	.41
PR-16	12.5	.25	.27	G	B-3½	.61	.54	.47
12	6.3	.15	.35	Q	G-3½	.75	.66	.58
13*	3.7	.30	.98	H	G-3½	.42	.37	.32
14*	2.47	.30	.50	H	G-3½	.42	.37	.32
27*	4.9	.30	1.4	H	G-4½	.78	.69	.60
43	2.5	.50	.50	J	T-3¼	.69	.61	.53
44*	6.3	.25	.90	J	T-3¼	.36	.31	.27
45*	3.2	.35	.50	J	T-3¼	1.01	.89	.77
47*	6.3	.15	.52	J	T-3¼	.36	.31	.27
48	2.0	.06	.04	H	T-3¼	.77	.68	.59
49	2.0	.06	.04	J	T-3¼	.76	.67	.58
50	7.5	.22	1.0	H	G-3½	.49	.44	.38
51*	7.5	.22	1.0	J	G-3½	.45	.40	.34
53*	14.4	.12	1.0	J	G-3½	.47	.41	.36
55*	7.0	.41	2.0	J	G-4½	.46	.41	.35
57	14.0	.24	2.0	J	G-4½	.44	.39	.34
67*	13.5	.59	4.0	K	G-6	.47	.42	.36
68*	13.5	.59	4.0	L	G-6	.84	.74	.64
73	14.0	.08	.30	R	T-1¾	.52	.46	.40
82*	6.5	1.05	6.0	L	G-6	.64	.56	.49
87*	6.8	1.91	15.0	K	S-8	1.34	1.18	1.02
88*	6.8	1.90	15.0	L	S-8	1.04	.92	.79
90*	13.0	.58	6.0	L	G-6	.63	.56	.49
93*	12.8	1.04	15.0	K	S-8	.85	.75	.65
94*	12.8	1.0	15.0	L	S-8	1.03	.91	.79
123	1.25	.30	10.0	H	G-3½	.41	.36	.31
131*	1.3	.10	.03	H	G-3½	.44	.39	.34
159	6.3	.15	3.8	R	T-3¼	.29	.25	.22
161	14.0	.19	1.0	R	T-3¼	.54	.48	.42
194	14.0	.27	2.0	R	T-3¼	.42	.37	.32
222*	2.25	.25	....	H	GTL-3	.71	.62	.54
224	2.15	.22	....	SP‡	GTL-2¾	1.27	1.12	.97
239	6.3	.36	.67	J	T-3¼	1.18	1.04	.90
240	6.3	.36	.67	J	T-3¼	1.27	1.12	.97
252	2.5	.35	....	D	GTL-1¾	4.28	3.78	3.28
253	2.5	.35	....	B	GTL-1¾	4.13	3.64	3.16
253X	2.5	.35	....	B	GTL-1¾	5.27	4.65	4.03
261	2.5	.35	....	B	GTL-1¾	5.64	4.98	4.31
301*	28.0	.17	3.0	K	G-5	1.53	1.35	1.17
304*	28.0	.30	6.0	L	G-6	1.58	1.40	1.20
305*	28.0	.51	15.0	K	S-8	1.52	1.34	1.16
307*	28.0	.66	21.0	K	S-8	1.52	1.34	1.16
313*	28.0	.17	.35	J	T-3¼	.67	.59	.52
323*	3.0	.19	.250	P	T-1¼	2.68	2.37	2.05
324	3.0	.19	.250	S	T-1¼	1.03	.91	.79
325	3.0	.19	.250	T‡	T-1¼	3.21	2.84	2.46
327*	28.0	.04	.340	D	T-1¾	.71	.63	.54
328*	6.0	.20	.60†	D	T-1¾	.63	.55	.48
330	14.0	.08	.500	D	T-1¾	.93	.82	.71
331	1.35	.06	.01	D	T-1¾	1.36	1.20	1.04
334	28.0	.04	.340	B	T-1¾	1.23	1.09	.94
336	14.0	.08	.50	B	T-1¾	1.31	1.15	1.00
337	6.0	.20	.60	B	T-1¾	1.36	1.20	1.04
344	10.0	.014	.002	B	T-1¾	1.53	1.35	1.17
363	14.0	.20	2.0	J	G-3½	.60	.53	.46
370	18.0	.04	.15	D	T-1¾	1.08	.95	.83
375	3.0	.015	.003	D	T-1¾	1.49	1.32	1.14
376	28.0	.06	.340	D	T-1¾	1.70	1.50	1.30
380	6.3	.04	.020	D	T-1¾	1.12	.99	.86
381	6.3	.20	.40	D	T-1¾	1.33	1.17	1.01
382	14.0	.08	.30	D	T-1¾	1.14	1.00	.87
386	14.0	.08	.30	B	T-1¾	1.61	1.42	1.23
387*	28.0	.04	.30	D	T-1¾	.67	.59	.51
388	28.0	.04	.30	B	T-1¾	1.38	1.22	1.06
425	5.0	.50	2.3	H	G-4½	$0.87	$0.76	$0.66
502	5.1	.15	.60	H	G-4½	.45	.39	.34
503	5.1	.15	.60	J	G-4½	.76	.67	.58
509K	24.0	18	2.8	E	G-6	1.07	.95	.82
965	9.8	.50	6.0	H	T-4½	2.58	2.28	1.97
1003	12.8	.94	15.0	K	B-6	.79	.70	.60
1004	12.8	.94	15.0	L	B-6	.79	.70	.60
1034	12.8	1.80	32.0	F	S-8	.81	.71	.62
	14.0	.51	4.0					
1073*	12.8	1.80	32.00	K	S-8	.85	.75	.65
1129*	6.4	2.63	21.00	K	S-8	.92	.81	.70
1130*	6.4	2.00	21.00	L	S-8	1.12	.99	.86
1133*	6.2	3.91	32.00	K	RP-11	1.84	1.63	1.41
1141*	12.8	1.44	21.00	K	S-8	.79	.70	.60
1142*	12.8	1.44	21.00	L	S-8	1.04	.92	.80
1143*	12.5	2.00	32.00	K	RP-11	2.27	2.00	1.73
1156	12.8	2.10	32.0	K	S-8	.81	.72	.62
1157	12.8	2.10	32.0	F	S-8	.39	.34	.30
1184*	5.5	6.25	50.00	L	RP-11	3.05	2.69	2.33
1224	34.0	.16	3.8	E	G-6	1.72	1.52	1.32
1251*	28.0	.23	3.0	K	G-6	1.70	1.50	1.30
1252*	28.0	.23	3.0	L	G-6	2.07	1.83	1.59
1385*	28.0	.....	20W	K	R-12	10.86	9.59	8.31
1449	14.0	.20	2.0	H	G-3½	.44	.39	.34
1458	20.0	.25	4.2	H	G-5	.89	.79	.68
1471	12.0	.26	2.3	E	G-6	2.48	2.19	1.90
1483	6.0	.04	.10	H	G-4½	.97	.85	.74
1487	14.0	.20	1.4	H	T-3¼	.60	.53	.46
1488	14.0	.15	1.5	J	T-3¼	1.27	1.12	.97
1490	3.2	.16	.20	J	T-3¼	1.35	1.19	1.03
1493	6.5	2.80	23	L	S-8	3.49	3.08	2.67
1630	6.5	2.75	23.0	N	S-8	4.56	4.02	3.49
1705D	14.0	.08	.50	S	T-1¾	.77	.68	.59
1728D	1.35	.06	.01	S	T-1¾	.65	.58	.50
1738	2.7	.06	.04	S	T-1¾	.77	.68	.59
1764D	28.0	.04	.34	M	T-1¾	.71	.62	.54
1767*	2.5	.20	.22	C	T-1¾	1.03	.91	.78
1768*	6.0	.20	.60	C	T-1¾	1.34	1.19	1.03
1783	2.5	.20	.22	S	T-1¾	.70	.62	.53
1813	14.4	.10	.86	J	T-3¼	.55	.49	.42
1815*	14.0	.20	1.4	J	T-3¼	.63	.55	.48
1816	13.0	.33	3.0	J	T-3¼	.67	.59	.51
1819*	28.0	.04	.34	J	T-3¼	.66	.58	.50
1820	28.0	.10	1.6	J	T-3¼	.66	.58	.50
1822	36.0	.10	2.5	J	T-3¼	1.71	1.51	1.31
1828	37.5	.05	.65	J	T-3¼	1.83	1.61	1.40
1829*	28.0	.07	1.0	J	T-3¼	.59	.52	.45
1835	55.0	.05	1.1	J	T-3¼	2.07	1.83	1.59
1847	6.3	.15	.38	J	T-3¼	.39	.34	.30
1850	5.0	.09	.25	J	T-3¼	1.08	.95	.82
1855	6.3	.80	3.6	J	T-4½	1.33	1.17	1.01
1869D	10.0	.014	.002	S	T-1¾	.89	.79	.68
1891	14.0	.24	2.0	J	T-3¼	.51	.45	.39
1892	14.4	.12	.75	J	T-3¼	.41	.36	.31
1893	14.0	.33	2.0	J	T-3¼	.51	.45	.39
2102D	18.0	.04	.15	S	T-1¾	.82	.73	.63
2107D	10.0	.04	.08	S	T-1¾	.88	.77	.67
2112	6.3	.20	.55	S	T-1¾	.92	.81	.70
2124	2.5	.35	....	S	GTL-1¾	3.00	2.65	2.29
2158	3.0	.015	.003	S	T-1¾	1.18	1.04	.90
2162D	14.0	.088	.100	S	T-1¾	.89	.79	.68
2180	6.3	.04	.02	S	T-1¾	.75	.66	.57
2181D	6.3	.20	.40	S	T-1¾	.80	.71	.62
2182D	14.0	.08	.30	S	T-1¾	.89	.79	.68
2185D	28.0	.04	.20	S	T-1¾	.82	.73	.63
2187D	28.0	.04	.30	S	T-1¾	.71	.62	.54

*Mean Spherical Candlepower is the measurement of the total integrated light output of the lamp operated at design voltage.

†At 5 volts. ‡Special, not illustrated. ***See following page for MS numbers.** §Single Contact. ▲Min. qty. 500.

BASE STYLES FOR CHICAGO MINIATURE LAMPS



(**A**) Sub-Midget Flanged, (**B**) Midget Grooved, (**C**) Midget Screw, (**D**) Midget Flanged, (**E**) Candelabra, (**F**) DC Bayonet Index, (**G**) Miniature Flange, (**H**) Miniature Screw, (**J**) Miniature Bayonet, (**K**) SC Bayonet, (**L**) DC Bayonet, (**M**) SC Prefocus, (**N**) DC Prefocus, (**P**) Threaded Knurled, (**Q**) Bi-Pin, (**R**) Wedge, (**S**) Wire Terminal. (SC for Single Contact; DC for Double Contact.)

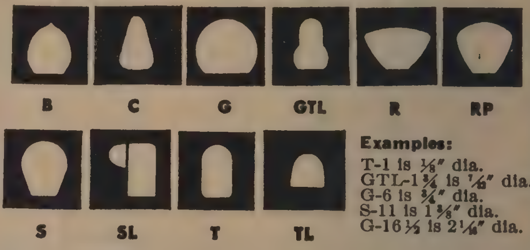
MINIATURE AND SUBMINIATURE LAMPS

Lamp No.	Design V	Design A	MSCP* Approx.	Base Fig.	Bulb	Net Ea., Lots of 10-99	100-499	500-999
313	28.0	.17	3.5	J	T-3¼	$0.67	$0.59	$0.52
334	28.0	.04	.340	B	T-1¾	1.23	1.09	.94
335	28.0	.04	.34	C	T-1¾	1.32	1.16	1.01
336	14.0	.08	.50	B	T-1¾	1.31	1.15	1.00
345	6.0	.04	.03	D	T-1¾	1.36	1.20	1.04
349	6.3	.20	.55	D	T-1¾	1.10	.97	.84
8-373	2.5	.35	....	B	TL-1¾	4.82	4.25	3.69
8-374	2.5	.35	....	S	TL-1¾	4.09	3.61	3.13
380	6.3	.04	.020	D	T-1¾	1.12	.99	.86
381	6.3	.20	.40	D	T-1¾	1.33	1.17	1.01
382	14.0	.08	.30	D	T-1¾	1.14	1.00	.87
399	28.0	.04	.30	C	T-1¾	1.59	1.40	1.21
8-428	5.0	.18	.35	D	T-1¾	9.64	8.51	7.37
634D	6.0	.20	.63	S	T-1¼	1.09	.96	.83
680*	5.0	.06	.03	S	T-1	1.36	1.20	1.04
682*	5.0	.06	.03	A	T-1	2.32	2.05	1.78
683*	5.0	.06	.05	S	T-1	1.20	1.06	.92
685*	5.0	.06	.05	A	T-1	1.68	1.48	1.28
713*	5.0	.075	.09	S	T-1	1.42	1.25	1.08
714*	5.0	.075	.09	A	T-1	2.79	2.47	2.14
718*	5.0	.115	.15	A	T-1	1.68	1.48	1.28
755	6.3	.15	.33	J	T-3¼	.75	.67	.58
757	28.0	.08	.62	J	T-3¼	.78	.68	.59
965	9.8	.50	6.0	H	T-4½	2.58	2.28	1.97
8-967	120	.025	.36	J	T-2	2.18	1.92	1.67
6803	5.0	.06	.03	S	T-¾	2.54	2.24	1.94
6833	5.0	.06	.05	S	T-¾	1.39	1.23	1.06
6839	28.0	.024	.15	A	T-1	2.53	2.34	1.94
7153	5.0	.115	.15	S	T-¾	1.11	.98	.85
7216•	5.0	.125	.22	S	T-1	3.47	3.06	2.66
7387	28.0	.04	.30	Q	T-1¾	.75	.66	.57
8610•	6.3	.20	.55	S	T-1¼	2.00	1.76	1.53
8627	28.0	.04	.32	S	T-1¼	2.56	2.26	1.96
8628•	6.0	.20	.63	D	T-1¼	4.14	3.65	3.17
8631•	1.35	.06	.006	D	T-1¼	2.89	2.55	2.21
8632	28.0	.04	.32	‡	T-1¼	4.82	4.25	3.69
8635	28.0	.04	.32	§	T-1¼	4.73	4.18	3.62
8640•	14.0	.08	.50	S	T-1¼	1.96	1.73	1.50
8666	5.0	.08	.15	S	T-1¾	5.14	4.54	3.93

*Mean Spherical Candlepower. †Silvered base. ‡Special midget flanged, not illus. §Special screw, not illus. •New vs. former No.: 7216 = CM8-715F1; 8610 = CM8-610; 8628 = CM8-628; 8631 = CM8-631; 8637 = CM8-637; 8640 = CM8-640; 8805 = CM8-805; 276 = 334LSV. ▲Min. qty. 500.

BULB SHAPES AND SIZES

The bulb is the glass envelope which houses the lamp filament assembly, and contains the vacuum or gas seal. A letter and number identifies bulb shape and approximate bulb diameter in eighths of an inch. Popular bulb shapes are:



Examples:
T-1 is ⅛" dia.
GTL-1¾ is 7/16" dia.
G-6 is ¾" dia.
S-11 is 1⅜" dia.
G-16½ is 2 1/16" dia.

CM7 SERIES BI-PIN LAMPS

Lamp No. CM7-	Design Volts	Design Amps	MSCP* Approx.	Base Fig.	Bulb	Net Ea., Lots of 10-99	100-499	500-999
7327	28.0	.04	.34	Q	T-1¾	$0.75	$0.66	$0.57
7328	6.0	.20	.60	Q	T-1¾	.86	.76	.66
7330	14.0	.08	.50	Q	T-1¾	.89	.79	.68
7838	2.7	.06	.04	Q	T-1¾	1.02	.90	.78
7876	28.0	.06	.34	Q	T-1¾	.97	.86	.74

*Mean Spherical Candlepower.

STANDARD VOLTAGE LAMPS

Lamp No.	Design Volts	Design Watts	Base Fig.	Bulb	Net Ea., Lots of 10-99	100-499
6S6	120	6	E	S-6	$0.89	$0.78
6S6	130	6	E	S-6	1.17	1.03
6S6	145	6	E	S-6	2.15	1.89
6S6DC	120	6	L	S-6	1.52	1.34
6T4121	115–125	6	E	T-4½	2.89	2.55
7C7	115–125	7	E	C-7	.71	.63
10C7	115–125	10	E	C-7	1.15	1.01
10S6C	230	10	E	S-6	2.47	2.18

▲Min. qty.500.

NEON GLOW LAMPS

Cold-cathode gas discharge type lamps. Neon gas ionizes and glows when voltage is applied.

Lamp No. NE-§	Design Volts	Design W	A	Base Fig.	Bulb	Net Ea., Lots of 10-99	100-499	500-999
2(A1A)	105–125	1/17	0.5	S	T-2	$0.39	$0.34	$0.30
2D(C7A)*	105–125	1/12	0.7	D‡	T-2	2.28	2.01	1.74
2H(C2A)	105–125AC	1/4	1.9	S	T-2	.37	.32	.26
51(B1A)	105–125	1/25	0.3	J	T-3¼	.87	.77	.67
51H(B2A)	105–125AC	1/7	1.2	J	T-3¼	.87	.77	.67

§Numbers in parentheses are ASA (American Standards Association) numbers. ‡Single contact.

★MILITARY (MS) EQUIVALENTS

Lamp No.	MS Number	Lamp No.	MS Number	Lamp No.	MS Number	Lamp No.	MS Number	Lamp No.	MS Number	Lamp No.	MS Number	Lamp No.	MS Number
PR-3	15610-2	**51**	15573-1	**90**	15569-4	**313**	25231-313	**1141**	35478-4	**1815**	15571-8	**685‡**	24515-685‡
PR-6	15610-1	**53**	15573-3	**93**	35478-93	**323**	25236-323	**1142**	15584-4	**1819**	15571-6	**713‡**	24367-713‡
13	15611-1	**55**	15572-1	**94**	15584-2	**327**	25237-327	**1143**	15565-3	**1829**	25231-1829	**714‡**	24515-714‡
14	15611-3	**64**	15569-1	**131**	15611-4	**328**	25237-328	**1184**	15564-1	**10C7DC**	16123	**715‡**	24367-715‡
27	15587-1	**67**	15570-4	**222**	28798-222	**387**	18209	**1251**	*	**680‡**	24367-680‡	**718‡**	24515-718‡
40	15536-4	**68**	15569-6	**301**	25238-301	**1073**	35478-1073	**1252**	15569-7	**682‡**	24515-682‡	**NE2D (C7A)**	25257-C7A (NE-2D)
44	15571-1	**82**	15569-3	**304**	15569-8	**1129**	35478-1129	**1385**	35480-2	**683‡**	24367-683‡		
45	15571-11	**87**	35478-87	**305**	35478-305	**1130**	15584-3	**1767**	15612-3				
47	15571-2	**88**	15584-1	**307**	35478-307	**1133**	15565-1	**1768**	15612-1				

*15570-1251. ‡Also AS15 (aged and selected with candlepower indicated) versions; e.g., 680AS15 = 24367-680AS15.

RELAMPABLE INDICATOR LIGHTS

TINY-MITE SERIES INDICATOR LIGHTS

Indicators feature patented socket construction which holds lamp securely, makes contact reliably and will not loosen with vibration or shock, yet permits easy lamp removal and replacement. Sockets and assemblies will accept various wedge-base lamps ranging from 6.3 to 28 volts. See table below.

SERIES 4600 INDICATOR LIGHTS

Complete assembly consists of socket, lens and lamp; components must be ordered separately but can be supplied assembled, on request, at no extra charge. No. 4610 socket (without threads) is supplied with No. SN3486 push-on Speednut*; can be keyed to prevent rotation. No. 4611 socket (threaded) supplied with zinc finished hex nut and internal tooth lockwasher. Polycarbonate lens; available in 7 colors, dome or flat. Polished, stainless steel bezel. Black nylon socket.

LENSES

Color	IDI No.		Price Code
	Dome Lens	Flat Lens	
Red	4621	4631	AE
Clear	4622	4632	AE
Amber	4623	4633	AE
White	4624	4634	AE
Green	4625	4635	AE
Blue	4626	4636	AE
Yellow	4627	4637	AE

SOCKETS

IDI No.	Fig.	Description	Price Code
4610	A	Without threads	AF
4611	B	Threaded	AL

TINY-MITE LAMP SOCKETS—KEYED

Sub-miniature wedge-base lamp sockets available in various styles. White nylon housing. Wire leads are 4 1/2" long, stripped 1/2". Sockets are keyed to prevent rotation.

IDI No.	Fig.	Mounting	Terminals	Price Code
4100	C	Rear insertion	Wire leads	AM
4110	D	Rivet	Solder lug	AB
4120	E	Tab	Wire leads	AM
4130	F	P.C.	P.C. terminals	AA
4140	G	P.C.	P.C. terminals	AG
4142	H	P.C.	P.C. terminals	AG

SUB-MINIATURE WEDGE-BASE LAMPS

Lamp No.	Design Volts	Design Amps	Candle-power Approx.	Rated Life Hours	Price Code
84	6.3	.04	.03	20,000	AK
86	6.3	.2	.4	20,000	AF
73	14.0	.08	.3	15,000	AH
37	14.0	.09	.5	1,500	AF
74	14.0	.1	.7	500	AH
85	28.0	.04	.3	7,000	AI

MINI-SLIDE PILOT LIGHTS

Mini-slide pilot lights are easy to install with push-on Speednut mounting. Connections can be made by soldering or with Q.C. receptacles. Front-of-panel relamping; never any need for tools or to go behind the panel.

PILOT LAMPS

Lamp No.	Design		Rated Life Hours	Watts at Design Volts	Avg. End Foot Candles	Price Code
	Volts	Amps				
6PSB	6.0	.14	20,000	.8	500	AN
12PSB	12.0	.17	12,000	2.0	2000	AN
24PSB	24.0	.073	10,000	1.7	3000	AN
28PSB	28.0	.04	5,000	1.1	1600	AN
48PSB	48.0	.053	7,500	2.5	1800	AN
60PSB	60.0	.05	7,500	3.0	2600	AP
120PSB	120.0	.025	10,000	3.0	1200	AO

SERIES 3060 PILOT LIGHTS (FIG. I)

Complete assembly consists of socket, lens and pilot lamp; components must be ordered separately, but can be supplied assembled, on request, at no extra charge. Socket supplied with No. SN0461 push-on Speednut. Polycarbonate lens, round or square. Black phenolic body. Q.C. terminals.

LENSES

Lens Color	IDI No.		Price Code
	Round Lens	Square Lens	
Red	3111	3121	AD
Clear	3112	3122	AD
Amber	3113	3123	AD
White	3114	3124	AD
Green	3115	3125	AD
Blue	3116	3126	AD
Yellow	3117	3127	AD

SOCKET

IDI No.	Description	Price Code
3060	Black phenolic socket	AJ

A

B

C

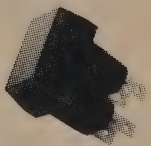
D

E

F

G

H



I

2800

2801

MINI-SLIDE PILOT LIGHTS (CONT'D)

SERIES 2800 PILOT LIGHTS (FIG. J)

Complete assembly consists of socket, lens and pilot light; components must be ordered separately, but can be supplied assembled, on request, at no extra charge. Type No. 2800 has black phenolic bezel, type No. 2801 has polished stainless steel bezel. Both use pilot type (long) lamps. Polycarbonate lens with choice of seven colors. Black phenolic body. Nickel-plated brass solder lug terminals.

LENSES

Lens Color	IDI No.	Price Code	Lens Color	IDI No.	Price Code
Red	2811	AC	Green	2815	AC
Clear	2812	AC	Blue	2816	AC
Amber	2813	AC	Yellow	2817	AC
White	2814	AC			

SOCKETS

IDI No.	Description	Price Code
2800	Socket with black phenolic bezel	AM
2801	Socket with stainless steel bezel	AN

PRICING

Price Code	Net Each, Lots of					
	1-24	25-99	100-249	250-499	500-999	1000-2499
AA	$0.29	$0.26	$0.23	$0.21	$0.17	$0.13
AB	.30	.27	.24	.22	.18	.14
AC	.33	.24	.21	.19	.17	.15
AD	.36	.26	.23	.20	.18	.17
AE	.40	.36	.32	.29	.24	.19
AF	.42	.38	.34	.31	.25	.20
AG	.44	.39	.35	.32	.26	.20
AH	.46	.41	.37	.34	.28	.21
AI	.58	.52	.46	.42	.35	.27
AJ	.72	.53	.46	.41	.36	.34
AK	.72	.65	.57	.53	.43	.33
AL	.72	.65	.58	.53	.43	.34
AM	.74	.66	.59	.54	.44	.34
AN	1.43	1.05	.90	.81	.71	.67
AO	1.61	1.18	1.02	.91	.80	.75
AP	1.65	1.21	1.04	.93	.82	.77

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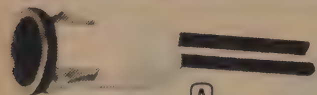
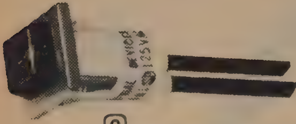
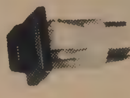
*Reg. Eaton Corp. TM.

NON-RELAMPABLE INDICATOR LIGHTS







NEON INDICATOR LIGHTS OMNI-GLOW 1000 SERIES

Choice of 105-125 or 208-250 VAC versions, each with appropriate current-limiting resistor. Four lens styles available. Lights can be mounted easily by push-on Speednut (not supplied) or will snap-fit into 1/2" dia. hole in .020"-.100" thick panel. UL recognized; CSA approved.

SERIES 1030D (FIG. A) AND 1030QD (FIG. B)

Termination: Series 1030D, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 1030QD, .187" Q.C. terminals. **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon.

Lens Color	Wire Leads			Q.C. Terminals		
	IDI No.		Price Code	IDI No.		Price Code
	115 VAC	220 VAC		115 VAC	220 VAC	
Red	1030D1	1031D1	AA	1030QD1	1031QD1	AC
Amber	1030D3	1031D3	AA	1030QD3	1031QD3	AC
White	1030D4	1031D4	AA	1030QD4	1031QD4	AC
Green	1032D5	1033D5	AG	1032QD5	1033QD5	AK

SERIES 1050A (FIG. C) AND 1050QA (FIG. D)

Termination: Series 1050A, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 1050QA, .187" Q.C. terminals. **Lens:** Models 1050A1, 1050A3 and 1050A4, nylon; all others, polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon.

Lens Color	Wire Leads			Q.C. Terminals		
	IDI No.		Price Code	IDI No.		Price Code
	115 VAC	220 VAC		115 VAC	220 VAC	
Red	1050A1	1051A1	AA	1050QA1	1051QA1	AC
Clear	1050A2	1051A2	AA	1050QA2	1051QA2	AC
Amber	1050A3	1051A3	AA	1050QA3	1051QA3	AC
White	1050A4	1051A4	AA	1050QA4	1051QA4	AC
Green	1052A5	1053A5	AG	1052QA5	1053QA5	AK

SERIES 1050C (FIG. E) AND 1050QC (FIG. F)

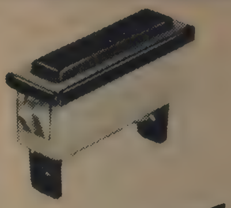
Termination: Series 1050C, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 1050QC, .187" Q.C. terminals. **Lens:** Models: 1050CL, 1050C3 and 1050C4, nylon; all others, polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon.

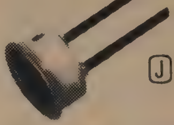
Lens Color	Wire Leads			Q.C. Terminals		
	IDI No.		Price Code	IDI No.		Price Code
	115 VAC	220 VAC		115 VAC	220 VAC	
Red	1050C1	1051C1	AA	1050QC1	1051QC1	AC
Amber	1050C3	1051C3	AA	1050QC3	1051QC3	AC
White	1050C4	1051C4	AA	1050QC4	1051QC4	AC
Green	1052C5	1053C5	AG	1052QC5	1053QC5	AK

SERIES 1050N (FIG. G) AND 1050QN (FIG. H)

Termination: Series 1050N, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 1050QN, .187" Q.C. terminals. **Lens:** polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon. For 105-125 VAC.

Lens Color	Wire Leads		Q.C. Terminals	
	IDI No.	Price Code	IDI No.	Price Code
Red	1050N1	AC	1050QN1	AF
Amber	1050N3	AC	1050QN3	AF
White	1050N4	AC	1050QN4	AF
Green	1052N5	AK	1052QN5	AN





LINE-O-LITE RECTANGULAR INDICATOR LIGHTS

Rectangular indicator lights provide a perfect assembly for illuminating a message or highlighting a function. Supplied with built-in, current-limiting resistor. Snap-fit mounting. Supplied with or without snap-on Speednut (specify when ordering). UL recognized; CSA approved.

SERIES 2330D AND 2330QD (FIG. I)

Termination: Series 2330D, No. 22 AWG, 105° C, wire leads, 4 1/2" long, stripped 1/2"; Series 2330QD, .250" Q.C. terminals. **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. For 105-125 VAC.

Color	Wire Leads		Q.C. Terminals	
	IDI No.	Price Code	IDI No.	Price Code
Red	2330D1	AD	2330QD1	AB
Amber	2330D3	AD	2330QD3	AB
White	2330D4	AD	2330QD4	AB
Green	2332D5	AL	2332QD5	AJ

OMNI-GLOW SERIES 2620K AND 2620QK (FIG. J)

Extra-large indicator lights. **Termination:** Series 2620K, No. 22 AWG, 105° C, wire leads, 4 1/2" long, stripped 1/2"; Series 2620QK, .250" Q.C. terminals. **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. UL recognized; CSA approved. For 105-125 VAC.

SERIES 2620K AND 2620QK (CONT'D)

Color	Wire Leads		Q.C. Terminals	
	IDI No.	Price Code	IDI No.	Price Code
Red	2620K1	AE	2620QK1	AD
Amber	2620K3	AE	2620QK3	AD
White	2620K4	AE	2620QK4	AD
Green	2622K5	AM	2622QK5	AL

SERIES 2620T (FIG. K)

Termination: No. 22 AWG, 105° C, wire leads, 4 1/2" long, stripped 1/2". **Lens:** Polycarbonate. **Bezel:** Mirror-finish, chrome-plated brass. **Housing:** White nylon. For 105-125 VAC.

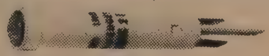
Color	IDI No. 105-125 VAC	Price Code	IDI No. 208-250 VAC	Price Code
Red	2620T1	AI	2621T1	AH
Amber	2620T3	AI	2621T3	AH
Green	2622T5	AO	2623T5	AO

PRICING

Price Code	Net Each, Lots of					
	1-24	25-99	100-249	250-499	500-999	1000-2499
AA	$1.22	$1.10	$0.98	$0.90	$0.73	$0.57
AB	1.30	1.17	1.04	.95	.78	.61
AC	1.33	1.19	1.06	.97	.80	.62
AD	1.37	1.24	1.10	1.01	.82	.64
AE	1.41	1.27	1.13	1.03	.84	.66
AF	1.43	1.29	1.14	1.05	.86	.67
AG	1.70	1.53	1.36	1.25	1.02	.80
AH	1.71	1.54	1.37	1.25	1.02	.80
AI	1.74	1.57	1.39	1.28	1.04	.81
AJ	1.78	1.60	1.43	1.31	1.07	.83
AK	1.81	1.63	1.45	1.33	1.09	.84
AL	1.86	1.67	1.49	1.36	1.11	.87
AM	1.89	1.70	1.51	1.39	1.13	.88
AN	1.91	1.72	1.53	1.40	1.15	.89
AO	2.22	2.00	1.78	1.63	1.33	1.04

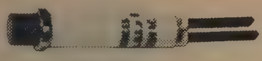
NON-RELAMPABLE & LED INDICATOR LIGHTS

L


M

P

Q


N

O

R

S

GLOW DOT SERIES MINIATURE INDICATOR LIGHTS

Tamper-proof housings, elimination of sockets and spring contacts, and rugged shock-proof design combine to provide highest reliability. Supplied with built-in current-limiting resistor. Snap-fit or Speednut mounting. UL recognized; CSA approved. 5/16" dia. body.

SERIES 2110A (FIG. L) AND 2110Q (FIG. M)

Termination: Series 2110A, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 2110QA, .187" Q.C. terminals. **Lens:** Polycarbonate. **Housing:** White nylon. For 105-125 VAC. **Bezel:** .34" dia. × .19" high. For 105-125 VAC.

Lens Color	Wire Leads		Q.C. Terminals	
	IDI No.	Price Code	IDI No.	Price Code
Red	2110A1	AC	2110QA1	AE
Clear	2110A2	AC	2110QA2	AE
Amber	2110A3	AC	2110QA3	AE
White	2110A4	AC	2110QA4	AE
Green	2112A5	AI	2112QA5	AK

SERIES 2150A (FIG. N) AND 2150QA (FIG. O)

Termination: Series 2150A, No. 22 AWG, 105° C, insulated wire leads, 4 1/2" long, stripped 1/2"; Series 2150QA, .187" Q.C. terminals. **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon. For 105-125 VAC.

Lens Color	Wire Leads		Q.C. Terminals	
	IDI No.	Price Code	IDI No.	Price Code
Red	2150A1	AD	2150QA1	AF
Amber	2150A3	AD	2150QA3	AF
White	2150A4	AD	2150QA4	AF
Green	2152A5	AJ	2152QA5	AL

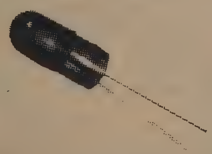
OMNI-GLOW SERIES 2650T FLASHERS (FIG. P)

Neon flashers incorporate a built-in flasher circuit to provide unmistakable indication, even in high ambient light conditions. Supplied with push-on Speednut. **Termination:** No. 22 AWG, 105° C, wire leads, 4.4-4.8" long, stripped .43-.57". **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. Flashing rate is 60 to 120 per minute.

Lens Color	IDI No.	Price Code	Lens Color	IDI No.	Price Code
Red	2650T1	AO	Amber	2650T3	AO

PANEL MOUNTED LEDs

SERIES 5210F



An insulated lead subminiature SUPER BRITE LED that offers superior performance in an economical package. The plastic lens gives extra protection against static discharge. **Mounting:** Will snap into .187-.192" hole in panel .020-.097" thick. **Termination:** No. 26 AWG, wire leads, 4.4-4.8" long, stripped .43-.57". **Anode:** Red lead. **Lens:** Polycarbonate.

Lens Color	IDI Model	LED Used	Price Code
Red	5210F1	4303F1	AN
Green	5210F5	4303F5	AN
Yellow	5210F7	4303F7	AN

LED LENSES

SERIES 4331

Designed for T-1 size LEDs, these plastic lenses provide protection against electrostatic discharge.

Lens Color	IDI No.	Price Code	Lens Color	IDI No.	Price Code
Red	4331	AA	Yellow	4337	AA
Green	4335	AA			

INCANDESCENT INDICATOR LIGHTS

OMNI-GLOW SERIES

General purpose incandescent indicator lights. **Termination:** No. 22 AWG, 105° C, wire leads, 4 1/2" long, stripped 1/2". **Lens:** Polycarbonate. **Bezel:** Chrome-plated brass. **Housing:** White nylon.

Lens Color	IDI No.			Price Code
	6 V	12 V	28 V	
SERIES 1090A (FIG. Q)				
Red	1090A1-6V	1090A1-12V	1090A1-28V	AH
Amber	1090A3-6V	1090A3-12V	1090A3-28V	AH
White	1090A4-6V	1090A4-12V	1090A4-28V	AH
Green	1090A5-6V	1090A5-12V	1090A5-28V	AH
Blue	1090A6-6V	1090A6-12V	1090A6-28V	AH

GLOW-DOT SERIES—MINIATURE

Termination: No. 24 AWG wire leads, 4 1/2" long, stripped 1/2". **Lens:** Polycarbonate. **Bezel:** Mirror finish chrome-plated steel (Series 2990P).

Lens Color	IDI No.			Price Code
	6 V	12 V	28 V	
SERIES 2990D (FIG. R)				
Red	2990D1-6V	2990D1-12V	2990D1-28V	AG
Amber	2990D3-6V	2990D3-12V	2990D3-28V	AG
White	2990D4-6V	2990D4-12V	2990D4-28V	AG
Green	2990D5-6V	2990D5-12V	2990D5-28V	AG
Blue	2990D6-6V	2990D6-12V	2990D6-28V	AG
SERIES 2990P (FIG. S)				
Red	2990P1-6V	2990P1-12V	2990P1-28V	AM
Amber	2990P3-6V	2990P3-12V	2990P3-28V	AM
White	2990P4-6V	2990P4-12V	2990P4-28V	AM
Green	2990P5-6V	2990P5-12V	2990P5-28V	AM
Blue	2990P6-6V	2990P6-12V	2990P6-28V	AM

PRICING

Price Code	Net Each, Lots of					
	1-24	25-99	100-249	250-499	500-999	1000-2499
AA	$0.25	$0.23	$0.20	$0.18	$0.15	$0.12
AB	.57	.51	.45	.42	.34	.26
AC	1.21	1.09	.96	.88	.72	.56
AD	1.28	1.16	1.03	.94	.77	.60
AE	1.31	1.18	1.05	.96	.79	.61
AF	1.39	1.25	1.11	1.02	.83	.65
AG	1.59	1.43	1.27	1.17	.96	.74
AH	1.61	1.45	1.29	1.18	.96	.75
AI	1.69	1.52	1.35	1.24	1.01	.79
AJ	1.77	1.59	1.41	1.30	1.06	.82
AK	1.79	1.61	1.44	1.32	1.08	.84
AL	1.87	1.68	1.50	1.37	1.12	.87
AM	1.91	1.72	1.53	1.40	1.14	.89
AN	1.92	1.73	1.54	1.41	1.15	.90
AO	4.44	4.00	3.55	3.26	2.66	2.07

BARE LEDs

SERIES 4304S

SUPER-BRITE LEDs with wide angle viewing.

Lens Color	IDI No.	Price Code	Lens Color	IDI No.	Price Code
Red	4304S1	AB	Yellow	4304S7	AB
Green	4304S5	AB			

LEDs

IDI SUPER-BRITE LEDs incorporate state-of-the-art construction with GaAsP on GaP for red and yellow and high efficiency GaP on GaP for green SUPER-BRITE LEDs are the brightest, most efficient LEDs currently available.

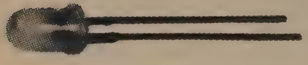
BARE LEDs

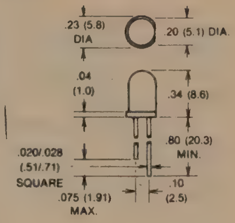
Due to the operating parameters of bare LEDs, your circuit must include appropriate current-limiting impedance, plus a rectifier diode for AC applications above 3 V or where DC transients above 3 V may be encountered. For optimum operation, forward current should be approximately 10 to 15 mA, and generally, should not exceed 20 mA average. Operation and Storage Temperature Range (all LEDs): −55° C to +100° C. For complete ratings, ask for IDI catalog.

SUGGESTED RESISTOR VALUES

Supply Voltage	Series Resistor, Ohms	
	AC	DC
6 V	100	220
12 V	330	680
28 V	750	1500

DUAL-COLOR LED

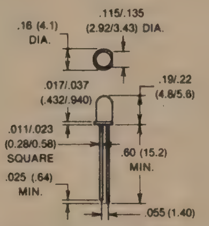




T-1 3/4 size LED provides both red and green light output. Two chips are connected in reverse parallel and the supply voltage polarity is switched to determine which chip emits. Chips are brightness matched to ensure uniform red and green outputs.

IDI Model 4301H1/5—Price Code .... **AC**

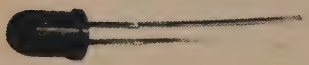
SERIES 4303F

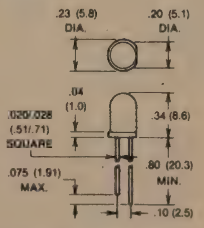


T-1 subminiature LED has ultra-high output—5 mcd is typical. Wide view angle of 90°.

Lens Color	IDI No.	Price Code	Lens Color	IDI No.	Price Code
Red	4303F1	AA	Yellow	4303F7	AA
Green	4303F5	AA			

SERIES 4304H AND 4305H





T-1 3/4 size LED has ultra-high output over a wide angle (Series 4304H) or a narrow beam (Series 4305H).

Lens Color	IDI No.	Viewing Angle	Luminous Intensity mcd at 20 mA		Price Code
			Min.	Typ.	
Red	4304H1	65°	3	6	AA
Green	4304H5	65°	6	7.5	AA
Yellow	4304H7	65°	2.5	6	AA
Red	4304H1	28°	17	40	AA
Green	4305H5	28°	30	34	AA
Yellow	4305H7	28°	10	45	AA

SERIES 4307T

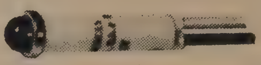
Subminiature, low-profile package has radial leads and is end stackable on .108" centers. Wide view angle.

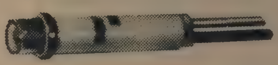
Color	IDI No.	Price Code
Red	4307T1	AA
Green	4307T5	AA
Yellow	4307T7	AA

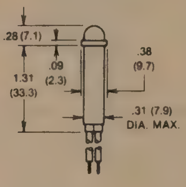
PANEL-MOUNT LEDs

Panel-mount LEDs incorporate ultra-high intensity SUPER-BRITE LEDs, except for Model 5100H1/5, which features a dual-color, red/green LED.

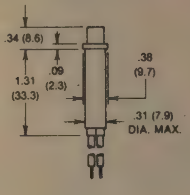
SERIES 2191L AND 2191U—5/16" DIAMETER







SERIES 2191U



SERIES 2191L

Each assembly includes an LED, a current-limiting resistor and a 200 PIV rectifier diode. A push-on Speednut is supplied with each unit. Leads are No. 22 AWG, 105° C, 4.4-4.8" long and stripped .43-.57". Bezel is chrome-plated brass. Housing is white nylon.

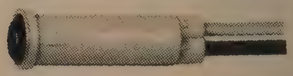
VOLTAGE TABLE

Nominal	VAC	VDC
6 V	5 to 11 V	3.5 to 6.5 V
12 V	10 to 20 V	6 to 13.5 V
24 V*	22 to 32 V	12 to 24 V

*To use 24 V model above 32 VAC, add 30 ohms/volt; above 24 VDC, add 50 ohms/volt. Use 1/2W resistor up to 50 V; 1 W from 50 to 70 V; 2 W from 75 to 125 V. Do not use beyond 125 V.

Lens Color	LED Used	IDI No.			Price Code
		6 V	12 V	24 V	
Red	4304H1	2191L1-6V	2191L1-12V	2191L1-24V	AD
Green	4304H5	2191L5-6V	2191L5-12V	2191L5-24V	AD
Yellow	4304H7	2191L7-6V	2191L7-12V	2191L7-24V	AD
Red	4304H1	2191U1-6V	2191U1-12V	2191U1-24V	AD
Green	4304H5	2191U5-6V	2191U5-12V	2191U5-24V	AD
Yellow	4304H7	2191U7-6V	2191U7-12V	2191U7-24V	AD

SERIES 3990A—7/32" DIAMETER



Snap-fits into .217-.221" diam. hole in .031-.062" thick panel. PVC insulated No. 24 AWG wire leads, 4.4-4.8" long, stripped .43-.57". Red lead indicates anode (+). White nylon housing.

Lens Color	IDI Model	LED Used	Price Code
Red	3990A1	4303F1	AB
Green	3990A5	4303F5	AB
Yellow	3990A7	4303F7	AB

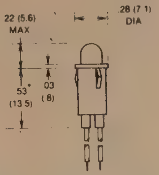
PRICING

Price Code	Net Each, Lots of					
	1-24	25-99	100-249	250-499	500-999	1000-2499
AA	$0.57	$0.51	$0.45	$0.42	$0.34	$0.26
AB	1.73	1.55	1.38	1.27	1.04	.81
AC	1.76	1.58	1.40	1.29	1.05	.82
AD	2.19	1.97	1.75	1.61	1.32	1.02

LISTING CONTINUED ON FOLLOWING PAGE

PANEL-MOUNTED LEDs (CONT'D)

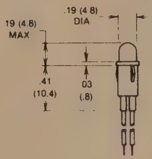
SERIES 5100H—1/4" DIAMETER


.22 (5.6) MAX
.28 (7.1) DIA
.53 (13.5)
.03 (.8)

Snap-fits into .249-.254" hole in .031-.062" thick panel. No. 24 AWG wire leads, 4.4-4.8" long, stripped .43-.57". Red lead indicates anode (+) for Models 5100H1, 5100H5 and 5100H7; yellow lead indicates anode for red light and blue lead indicates anode for green light of Model 5100H1/5. Black nylon housing.

Lens Color	IDI Model	LED Used	Price Code
Red	5100H1	4304H1	AF
Green	5100H5	4304H5	AF
Yellow	5100H7	4304H7	AF
Red/Green	5100H1/5	4304H1/5	AG

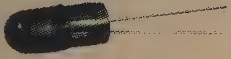
SERIES 5110F—5/32" DIAMETER

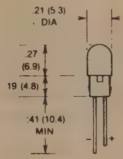

.19 (4.8) DIA
.19 (4.8) MAX
.41 (10.4)
.03 (.8)

Snap-fits into .155-.158" diam. hole in .031-.062" thick panel. PVC insulated No. 26 AWG wire leads 4.4-4.8" long, stripped .43-.57". Red lead indicates anode (+). Black nylon housing.

Lens Color	IDI Model	LED Used	Price Code
Red	5110F1	4303F1	AF
Green	5110F5	4303F5	AF
Yellow	5110F7	4303F7	AF

SERIES 5200F—3/16" DIAMETER

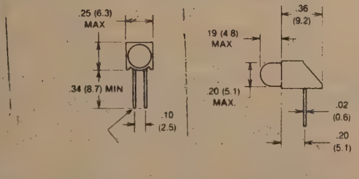



.21 (5.3) DIA
.27 (6.9)
.19 (4.8)
.41 (10.4) MIN
+

Snap-fits into .187-.92" diam. hole in .020-.097" thick panel. Wide viewing angle. Polycarbonate lens.

Lens Color	IDI Model	LED Used	Price Code
Red	5200F1	4303F1	AE
Green	5200F5	4303F5	AE
Yellow	5200F7	4303F7	AE

P.C. BOARD MOUNTED LEDs

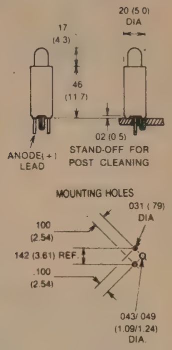

.25 (6.3) MAX
.34 (8.7) MIN
.10 (2.5)
.36 (9.2)
.19 (4.8) MAX
.20 (5.1) MAX
.02 (0.6)
.20 (5.1)

Printed-circuit-board mounted LED assemblies feature press-in mounting for precise location on the board. Easy to mount. High contrast ratio. Built-in board standoff prevents flux entrapment and permits easy washing.

SERIES 5300H

Lens Color	IDI Model	LED Used	Price Code
Red	5300H1	4304H1	AB
Green	5300H5	4304H5	AB
Yellow	5300H7	4304H7	AB

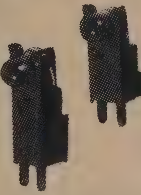
SERIES 5310F

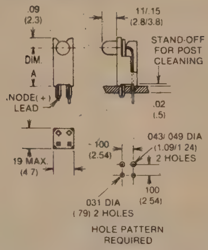

.20 (5.0) DIA
.17 (4.3)
.46 (11.7)
.02 (0.5)
ANODE(+) LEAD
STAND-OFF FOR POST CLEANING
MOUNTING HOLES
.031 (.79) DIA
.100 (2.54)
.142 (3.61) REF.
.100 (2.54)
.043/.049 (1.09/1.24) DIA

Subminiature LEDs ideal for use where the LED must align with opening in a cover panel. Black nylon housing.

Lens Color	IDI Model	LED Used	Price Code
Red	5310F1	4303F1	AC
Green	5310F5	4303F5	AC
Yellow	5310F7	4303F7	AC

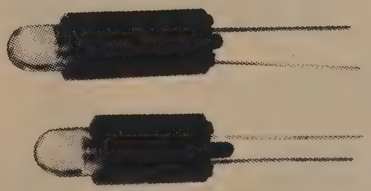
SERIES 5320F AND 5321F

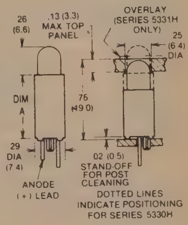



.09 (2.3)
.11/.15 (2.8/3.8)
STAND-OFF FOR POST CLEANING
DIM. A
NODE(+) LEAD
.02 (.5)
.043/.049 DIA (1.09/1.24) 2 HOLES
.100 (2.54)
.19 MAX (4.7)
.100 (2.54)
.031 DIA (.79) 2 HOLES
HOLE PATTERN REQUIRED

Lens Color	IDI Model	LED Used	Dim. "A"	Price Code
Red	5320F1	4303F1	.35"	AD
Green	5320F5	4303F5	.35"	AD
Yellow	5320F7	4303F7	.35"	AD
Red	5321F1	4303F1	.45"	AD
Green	5321F5	4303F5	.45"	AD
Yellow	5321F7	4303F7	.45"	AD

SERIES 5330H AND 5331H




.26 (6.6)
.13 (3.3) MAX TOP PANEL
OVERLAY (SERIES 5331H ONLY)
.25 (6.4) DIA
DIM A
.76 (19.0)
.29 DIA (7.4)
.02 (0.5) STAND-OFF FOR POST CLEANING
ANODE (+) LEAD
DOTTED LINES INDICATE POSITIONING FOR SERIES 5330H

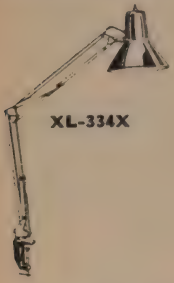
T-1 3/4 size with wide viewing angle (Series 5330H) or an intense beam (Series 5331H). Height matches popular rocker and toggle switches. Use Series 5331H to fit panel openings; use Series 5331H to line up behind panel overlays. Black nylon housing.

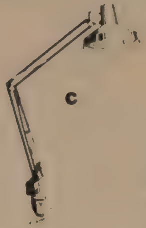
Lens Color	IDI Model	LED Used	Dim. "A"	Price Code
Red	5330H1	4304H1	.61"	AA
Green	5330H5	4304H5	.61"	AA
Yellow	5330H7	4304H7	.61"	AA
Red	5331H1	4304H1	.46"	AA
Green	5331H5	4304H5	.46"	AA
Yellow	5331H7	4304H7	.46"	AA

PRICING

Price Code	Net Each, Lots of					
	1-24	25-99	100-249	250-499	500-999	1000-2499
AA	$0.91	$0.82	$0.73	$0.67	$0.55	$0.42
AB	.92	.82	.73	.67	.55	.43
AC	.95	.85	.76	.70	.57	.44
AD	.96	.86	.77	.70	.58	.45
AE	1.29	1.16	1.03	.95	.77	.60
AF	1.65	1.49	1.32	1.21	.99	.77
AG	2.98	2.68	2.38	2.18	1.79	1.39

LEDU Lamps and Accessories


XL-334X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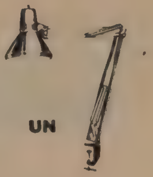
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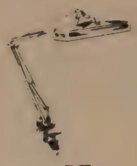
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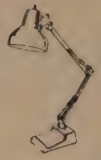
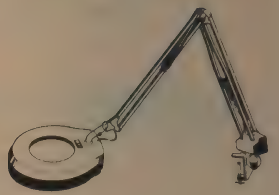

M-928


IM-10

ADJUSTABLE INCANDESCENT LAMPS

Spring-balanced, heavy-gauge steel arms and swivel mount position light where you need it. Available in a variety of baked enamel finishes. Wide choice of mounting brackets and bases.

UN SERIES UNI-LAMP

Completely adjustable; spring-balanced arms. Tension control knobs hold arms in position. Vented shade prevents heat build-up. Available in blue, avocado, red, orange, gray, white, black, yellow or chocolate brown. UL listed for 100 watts. 2-conductor cord standard; 3-conductor available. **Shipping Weight:** 5 lbs.

Model No.	Reach	Mounting	List Price
UN-8A	33″	Standard bracket	**$41.95**
UN-8B	33″	Wall bracket	**41.95**
UN-8C	33″	Fixed bracket	**41.95**
UN-8K	33″	Weighted base	**55.95**
UN-10A	40″	Standard bracket	**43.95**
UN-10B	40″	Wall bracket	**43.95**
UN-10C	40″	Fixed bracket	**43.95**
UN-10D	40″	Adjustable bracket	**48.95**
UN-10K	40″	Weighted base	**57.95**

THE DIPLOMAT

Smart, woodgrain, black and chrome design. Molded base, single flexible arm and fluorescent tube. Big light output. Comes with 15-Watt bulb. **Shipping Weight:** 5 lbs.
Model F-15—List Price.......................... **$43.95**

DECORATOR LAMP

Elegantly styled desk lamp. Features folding friction arm and swivel shade. Compactly designed with round weighted base. Available in polar white, yellow, or red. Comes with 40S11 bulb. **Shipping Weight:** 2¼ lbs.
Model XL-4 Decorator Lamp—List Price............ **$26.95**

DESIGNER P SERIES—ENAMELED

Available in white or black baked enamel finish. Vinyl spring covers and louvered shade optional. 3-conductor cord standard. Adjusts to 42″. UL listed for 100 watts. **Shipping Weight:** 5 lbs.

Model No.	Mounting	List Price
P-10A	Standard bracket	**$49.95**
P-10B	Wall bracket	**49.95**
P-10C	Fixed bracket	**49.95**
P-10D	Adjustable bracket	**54.95**
P-10K	Weighted base	**63.95**

THE DUKE DESK LAMP

Sturdy, compact deck lamp adjusts to 25″. Baked enamel finish in orange, black, white, blue or chocolate brown. Color-matching, weighted base. 5″ diameter cool-vented shade. 2-conductor cord standard; 3-conductor available. UL listed for 60 watts. **Shipping Weight:** 7 lbs.
Model M-928—List Price......................... **$39.95**

MODEL XL-334X—ECONO-LAMP

Tubular steel construction; baked enamel finish. Spring-balanced arms adjust to 33″. Tension control knobs hold arms in position. 2-conductor cord standard. Comes in red, black, yellow, blue, white or chocolate brown with white "X" bracket. UL listed for 60 watts. **Shipping Weight:** 3½ lbs.
Model XL-334X—List Price....................... **$26.50**

DF SERIES—ADJUSTABLE FLUORESCENT

Fully adjustable arms. Instant start switch. Durable thermoplastic resin shade; stays 20% cooler than metal. Available in gray, black, white or chocolate brown. Uses two 15 watt T-8 fluorescent tubes. 3-conductor cord standard. **Shipping Weight:** 8 lbs.

Model No.	Reach	Mounting	List Price
DF-8A	33″	Standard bracket	**$82.95**
DF-8B	33″	Wall bracket	**82.95**
DF-8C	33″	Fixed bracket	**82.95**
DF-8E	33″	Weighted base	**99.95**
DF-10A	40″	Standard bracket	**84.95**
DF-10B	40″	Wall bracket	**84.95**
DF-10C	40″	Fixed bracket	**84.95**
DF-10D	40″	Adjustable bracket	**89.95**

C SERIES—FLUORESCENT/INCANDESCENT

Fluorescent and incandescent light from a single shade. Independent or simultaneous operation. Available in gray, black, white or chocolate brown; **Series C10** also available in orange. Uses one 60 watt standard bulb and one 22 watt, T-9 fluorescent tube. **Shipping Weight:** 8 lbs.

Model No.	Reach	Mounting	List Price
C-8A	34″	Standard bracket	**$82.95**
C-8B	34″	Wall bracket	**82.95**
C-8C	34″	Fixed bracket	**82.95**
C-8E	34″	Weighted base	**99.95**
C-10A	42″	Standard bracket	**84.95**
C-10B	42″	Wall bracket	**84.95**
C-10C	42″	Fixed bracket	**84.95**
C-10D	42″	Adjustable bracket	**89.95**

IM SERIES—FLUORESCENT WITH MAGNIFIER

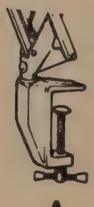
Perfectly balanced fluorescent lighting with precision magnifier lens. Tough thermoplastic shade. Easy lens removal. New wire clip design permits easy installation and removal of fluorescent tube. Comes with plastic shield to protect tube from soiling or damage. Available in gray, black, white or chocolate brown. Uses one 22 watt, T-9 fluorescent tube. 3-diopter lens standard; 5-diopter available. **Shipping Weight:** 8 lbs.

Model No.	Reach	Mounting	List Price
IM-8A	36″	Standard bracket	**$92.95**
IM-8B	36″	Wall bracket	**92.95**
IM-8C	36″	Fixed bracket	**92.95**
IM-8E	36″	Weighted base	**109.95**
IM-10A	42″	Standard bracket	**94.95**
IM-10B	42″	Wall bracket	**94.95**
IM-10C	42″	Fixed bracket	**94.95**
IM-10D	42″	Adjustable bracket	**99.95**

MIGHTY-LITE DESK LAMP

Handsome, compact desk lamp offers exceptional flexibility and big light output. Spring balanced arm adjusts easily to 33″. Supplied with 18″ fluorescent tube. Available in yellow, or chocolate brown with white trim or solid polar white. Uses 15 watt tube. **Shipping Weight:** 5 lbs.
Model XL-535A Mighty-Light—List Price............ **$44.95**

LAMP BRACKETS, BASES AND ACCESSORIES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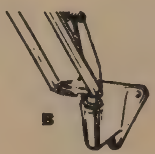
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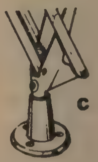
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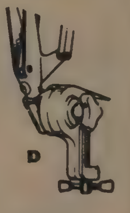
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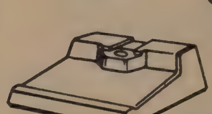

E AND K

Model	Description	List Price
A	Standard mounting bracket	**$ 4.00**
B	Wall mounting bracket	**4.00**
C	Fixed mounting bracket	**4.00**
D	Adjustable mounting bracket	**9.00**
E	Weighted base (Wt. 13 lbs.)	**21.00**
K	Weighted base (Wt. 9 lbs.)	**18.00**
	Floor stand with casters	**80.00**
	3-conductor cord, 7′ (installed)	**5.00**
	Spring covers, white nylon (set of 4)	**8.00**
	4-ring louver, white; for UN series	**6.00**
	5-ring louver, white; for P series	**6.00**
	6-ring louver, white; for C series	**7.00**
	Incandescent bulb, 60, 75 or 100 watt	**.75**
	Incandescent bulb, 40 watt, S11/IF for the ASTRO	**1.94**
	Fluorescent tube, T-8; for DF, F, XL-535	**3.25**
	Fluorescent tube, T-9; for C and Mg	**8.75**

DURACELL® Batteries

NICKEL CADMIUM RECHARGEABLE BATTERIES

Type Number	AH	Size	Net Each
NC13	1.0	"D"	$ 3.30
NC13B2	Blister pack of 2		6.60
NC14	1.0	"C"	3.30
NC14B2	Blister pack of 2		6.60
NC15	0.5	"AA"	2.64
NC15B2	Blister pack of 2		5.28
NC1604	0.08	9 V	6.60
NC1604B	Blister pack of 1		6.60
BC1	Charger for all above		15.84
NC13MB2	"D" module and 2 batteries		7.92
NC14MB2	"C" module and 2 batteries		7.92
NC15MB2	"AA" module and 2 batteries		6.60
NC1604MB	9 V module and battery		7.92
BC2B	Double module charger		4.88
BC3B	Single module charger		3.56

ZINC-CARBON BATTERIES

Type Number	Volts	Use	Net Each
M13F	1.5	Gen. pur. "D"	$0.34
M13FG2	1.5	Pack of 2	.68
M13HD	1.5	Heavy duty "D"	.43
M13HD2	1.5	Pack of 2	.88
M14F	1.5	Gen. pur. "C"	.34
M14FG2	1.5	Pack of 2	.68
M14HD	1.5	Heavy duty "C"	.43
M14HD2	1.5	Pack of 2	.88
M15F	1.5	Gen. pur. "AA"	.26
M15FB2	1.5	Pack of 2	.53
M15HD	1.5	Heavy duty "AA"	.34
M15HD4	1.5	Pack of 4	1.25
M10	1.5	Novelties	.25
M1604	9.0	Gen. pur. 9 V	.71
M1604B2	9.0	Pack of 2	1.16
M1604HD	9.0	Heavy duty 9 V	1.01
M1604HD2	9.0	Pack of 2	1.73
M24F	1.5	Gen. pur. "AAA"	.26

SPECIAL APPLICATION BATTERIES

Type Number	Volts	mAH	Diam.	Height	Net Each
RM1	1.4	1000	.625"	.645"	$1.34
RM1R	1.35	1000	.625"	.645"	1.48
RM4R	1.35	3400	1.195"	.660"	3.76
RM12R	1.35	3800	.625"	1.963"	3.69
RM13H	1.4	85	.305"	.210"	.43
RM41H	1.4	150	.455"	.160"	.45
RM312H	1.4	45	.305"	.140"	.45
RM42R	1.35	14000	1.195"	2.390"	8.31
RM401H	1.4	800	.455"	1.130"	1.05
MP401H	1.4	1000	.453"	1.140"	1.28
RM401R	1.35	800	.455"	1.130"	2.01
RM601R	1.35	1800	.625"	1.140"	2.62
RM625H	1.4	350	.615"	.238"	1.04
RM630H	1.4	350	.615"	.238"	1.16
RM640	1.4	500	.625"	.440"	1.21
RM675H	1.4	180	.455"	.210"	.43
MP675H	1.4	220	.455"	.210"	.45
TR126	8.4	600	.724"	2.000"	5.30
TR132H	2.8	1000	.656"	1.285"	2.22
TR132R	2.7	1000	.656"	1.285"	3.49
TR133	4.2	1000	.656"	1.930"	4.29
TR133R	4.05	1000	.656"	1.930"	5.03
TR134	5.6	1000	.656"	2.575"	4.36
TR134R	5.4	1000	.656"	2.575"	5.36
TR135R	6.75	1000	.656"	3.220"	6.44
TR136	8.4	1000	.656"	3.865"	5.77
TR146X	8.4	575	1.03" × .66"	1.750"	4.69
TR164	5.6	500	.656"	1.723"	3.62
TR165	7.0	500	.656"	2.155"	4.69
TR175	7.0	180	.500"	1.031"	3.15
TR177	9.8	180	.515"	1.810"	4.43
TR286	8.4	750	1.000"	1.938"	5.83
TR289	12.6	750	1.000"	2.406"	8.04
ZM9	1.4	2500	.560"	1.969"	2.15
9R81	1.4	800	.455"	1.130"	2.01
MS13H*	1.5	70	.305"	.210"	.79
MS41H	1.5	120	.455"	.160"	.86
MS76H*	1.5	180	.455"	.210"	1.34
MS312H*	1.5	36	.305"	.140"	.67
303996	8.4	575	1.03" × .66"	1.750"	5.16
DA13†	1.4	170	.305"	.210"	1.00
DA41†	1.4	300	.455"	.165"	1.00
DA312†	1.4	70	.305"	.140"	1.00
DA675†	1.4	400	.455"	.210"	1.00

*Silver Oxide; †Zinc-Air; all others mercury.

WATCH AND CALCULATOR BATTERIES

Mercury, silver oxide, and lithium batteries for watches and calculators. Supplied blister packed on 1 3/4" × 1 3/4" cards.

Type Number	Volts	mAH	Diam.	Height	Net Each
D301#	1.5	100	.455"	.165"	$1.56
D303#	1.5	200	.455"	.220"	1.86
D313*	1.35	220	.455"	.208"	1.23
D323*#	1.35	95	.305"	.210"	.96
D325*	1.35	50	.305"	.141"	1.23
D343*#	1.35	120	.455"	.137"	.96
D344	1.5	83	.455"	.135"	1.56
D350	1.5	90	.455"	.137"	1.62
D355	1.5	250	.610"	.190"	3.42
D357#	1.5	180	.455"	.210"	1.86
D362	1.5	16	.311"	.082"	1.14
D364	1.5	15	.267"	.084"	1.14
D384	1.5	38	.311"	.141"	1.02
D386#	1.5	120	.455"	.165"	1.44
D387*	1.35	80	.455"	.137"	1.53
D388*	1.35	62	.348"	.130"	1.23
D389#	1.5	70	.455"	.110"	1.26
D390	1.5	70	.455"	.122"	1.38
D391#	1.5	35	.455"	.081"	1.14
D392#	1.5	38	.305"	.143"	.87
D393#	1.5	70	.305"	.210"	1.23
D394	1.5	45	.374"	.141"	1.29
D395	1.5	67	.375"	.102"	1.23
D396	1.5	24	.311"	.102"	1.17
D397	1.5	24	.311"	.102"	1.23
DL1620B†	3.0	50	.630"	.079"	1.77
DL2016B†	3.0	50	.787"	.063"	1.77
DL2025B†	3.0	120	.787"	.098"	1.77
DL2032B†	3.0	170	.787"	.126"	1.77
DL2420B†	3.0	120	.965"	.079"	1.77
DL2430B†	3.0	200	.965"	.118"	1.77

*Mercury; †Lithium; all others Silver Oxide. #Also available on large (3 3/4" × 4 1/2") cards at same price.

PHOTO BATTERIES

Type Number	Volts	mAH	Net Each	Type Number	Volts	mAH	Net Each
PX1B	1.35	1000	$1.68	PX675B	1.35	190	$1.34
PX13B	1.35	250	1.41	PX825B2	1.5	300	1.88
PX14B	2.7	250	2.55	MN9100*	1.5	650	.81
PX19B*	4.5	580	2.42	MN9100B2*	1.5	650	1.62
PX21B*	4.5	580	2.35	RM400RB	1.35	80	1.48
PX23B	5.6	110	1.88	MS76B†	1.5	180	2.01
PX24B*	3.0	580	2.15	7R31B	4.0	200	2.68
PX25B	4.05	250	3.09	7K67B*	6.0	500	2.22
PX27B	5.6	150	1.88	9K62B*	3.0	500	2.62
PX28B†	6.0	180	6.64	M215‡	22.5	. . .	1.92
PX28LB#	6.0	200	4.76	M504‡	15.0	. . .	2.42
DL1/3NB#	3.0	160	2.62	M505‡	22.5	. . .	3.06
PX30B*	3.0	300	1.95	PF489‡	225.0	. . .	29.83
PX32B	5.6	500	3.62	PF491‡	240.0	. . .	14.21
PX625B	1.35	250	1.41	PF497‡	510.0	. . .	24.15
PX640B	1.35	500	1.55				

*Alkaline; †Silver Oxide; #Lithium; ‡Zinc-Carbon; all others mercury.

ALKALINE BATTERIES

Type Number	Volts	Use	Net Each
MN1300	1.5	All purpose "D"	$0.98
MN1300B2	1.5	Pack of 2	1.97
MN1400	1.5	All purpose "C"	.98
MN1400B2	1.5	Pack of 2	1.97
MN1500	1.5	All purpose "AA"	.75
MN1500B2	1.5	Pack of 2	1.51
MN1500B4	1.5	Pack of 4	2.81
MN1604	9.0	Radios, calculators	1.96
MN1604B	9.0	Blister pack of one	1.97
MN1604B2	9.0	Pack of 2	3.33
MN2400	1.5	All purpose "AAA"	.75
MN2400B2	1.5	Pack of 2	1.51

SMOKE ALARM BATTERIES

Type Number	Volts	mAH	Size, Inches	Net Each
304116B	12.6	900	1.03" × 2.875"	$7.98
TR431B	11.2	1000	1.03" × 2.875"	7.98

LANTERN BATTERIES

Type Number	Volts	Net Each	Type Number	Volts	Net Each
M900	1.5	$2.78	M918	6.0	$6.10
M905S	1.5	3.97	M926	12.0	7.37
M908	6.0	2.28	MN908*	6.0	5.82
M915	6.0	2.55	MN918*	6.0	12.32

*Alkaline; all others zinc-carbon.

EVEREADY® Batteries

TRANSISTOR ENERGIZER BATTERIES FOR PORTABLE RADIO AND ELECTRONIC APPLICATIONS

No.	Voltage or Size	Overall Size, In. L. x W. x H.	Terminals and Voltages	Battery Weight	Unit Pkg.	List Price Ea.	Net Each in Unit Pkg.
206	9	¾ dia. x 2	Flat Contacts, Neg. Recess. −, +9	1.2 oz.	1	$ 2.75	$1.83
216	9	1 1/32 x 21/32 x 1 29/32	Min. Snap−,+9	1.5 oz.	12	1.10	.71
216BP▴	9	1 1/32 x 21/32 x 1 29/32	Min. Snap−, +9	1.5 oz.	12	1.10	.72
216BP-2▴	9	1 1/32 x 21/32 x 1 29/32	Min. Snap−, +9	1.5 oz.	12	1.75	1.145
226	9	1 dia. x 1 15/16	Snap Type−, +9	2 oz.	6	3.00	2.00
228	12	1 dia. x 2 7/16	Snap Type−, +12	2.3 oz.	1	8.50	5.66
246	9	1 13/32 x 1 11/32 x 2¾	Min. Snap−, +9	4.5 oz.	1	4.70	3.13
266	9	1 13/16 x 1 13/16 x 2 7/16	Snap Type,− +9	7 oz.	1	4.75	3.17
276	9	2 9/16 x 2 1/32 x 3 5/32	Snap Type−, +9	15 oz.	1	6.10	4.07
522	9	1 1/32 x 11/16 x 1 15/16	Min. Snap−, +9	1.59 oz.	12	3.00	1.96
522BP▴	9	1 1/32 x 11/16 x 1 15/16	Min. Snap−, +9	1.59 oz.	12	3.00	1.97
1015	AA	9/16 dia. x 1 31/32	Flat Contacts−, +1½	0.6 oz.	24	.475	.31
1015BP-4▴	AA	9/16 dia. x 1 21/32	Flat Contacts−, +1½	0.6 oz.	12	1.66	1.07
1222	9	1 1/32 x 11/16 x 1 15/16	Min. Snap−, +9	1.5 oz.	12	1.69	1.10
2356N	9	2 3/16 x 1 5/32 x 6¼	Snap Type−, +9	11 oz.	1	13.15	8.77
2709N	9	1 13/32 x 47/64 x 4 11/16	Snap Type−, +9	2.5 oz.	1	8.35	5.57

▴Blister pack.

SEALED RECHARGEABLE NICKEL-CADMIUM BATTERIES FOR PORTABLES AND ELECTRONIC APPLICATIONS

No.	Cell Type	Voltage	Overall Size, In. L. x W. x H.	Terminals and Voltages	Unit Pkg.	Weight	List Price Ea.	Net Ea. in Unit Pkg.
CF1.2	Sub C	1.2	0.900 dia. x 1.684	Flat Contacts−,+1.2	1	1.7 oz.	$ 9.60	$ 5.95
CF1.2T*	Sub C	1.2	0.900 dia. x 1.689	Solder Tabs−,+1.2	1	1.7 oz.	10.30	6.39
CH1.2	Sub C	1.2	0.900 dia x 1.684	Flat Contacts−,+1.2	1	1.7 oz.	8.00	4.96
CH1.2T*	Sub C	1.2	0.900 dia. x 1.689	Solder Tabs−,+1.2	1	1.7 oz.	8.70	5.39
[illegible]4	D	1.[illegible]	1.294 dia. x 2.390	Flat Contacts−, +1.2	6	5.4 oz.	17.65	10.94
CF4T*	D	1.2	1.294 dia. x 2.410	Solder Tabs−,+1.2	1	5.4 oz.	18.30	11.35
CH4	D	1.2	1.344 dia. x 2.406	Flat Contact−,Solder Tab+1.2	1	5.4 oz.	14.70	9.11
CH4T*	D	1.2	1.344 dia. x 2.416	Solder Tabs−,+1.2	1	5.4 oz.	15.35	9.52
CF15	AA	1.2	0.553 dia. x 1.969	Flat Contacts −, +1.2	1	0.8 oz.	5.10	3.29
CF15T*	AA	1.2	0.553 dia. x 1.981	Solder Tabs −, +1.2	1	0.8 oz.	5.80	3.72
CH15	AA	1.2	.553 dia. x 1.969	Flat Contacts—, +1.2	1	0.8 oz.	4.05	2.62
CH15BP-2▴	AA	1.2	0.553 dia. x 1.969	Flat Contacts−,+1.2	1	0.8 oz.	8.10	5.26
CH15T*	AA	1.2	.553 dia. x 1.981	Solder Tabs—, +1.2	1	0.8 oz.	4.70	3.04
CH35	C	1.2	1 1/32 dia. x 1 31/32	Flat Contacts—, +1.2	1		4.80	3.09
CH35BP-2▴	C	1.2	1 1/32 dia. x 1 31/32	Flat Contacts−,+1.2	1	1.95 oz.	9.60	6.20
CH50	D	1.2	1 11/32 dia. x 2 27/64	Flat Contacts—, +1.2	1	2.2 oz.	4.80	3.09
CH50BP-2▴	D	1.2	1 11/32 dia. x 2 27/64	Flat Contacts−, +1.2	1	2.2 oz.	9.60	6.20
C[illegible]22	Transistor	7.2	1 3/64 x 39/64 x 1 15/16	Min. Snap−,+7.2	1	1.5 oz.	10.30	6.61
CH22BP▴	Transistor	7.2	1 3/64 x 39/64 x 1 15/16	Min. Snap−,+7.2	1	1.5 oz.	10.30	6.62
CH150	N	1.2	0.475 dia. x 1.135	Flat Contacts−,+1.2	1	0.4 oz.	4.65	2.88
CH150T*	N	1.2	0.475 dia. x 1.145	Solder Tabs−,+1.2	1	0.4 oz.	5.30	3.29
ACC100	Nickel-cadmium battery charger, charges 1 to 10 cells, all types					6.0 oz.	85.99	57.32
ACC75	Nickel-cadmium battery charger, charges AA, C, D sizes					4.5 oz.	27.99	18.66
ACC50CR	Nickel-cadmium battery charger, charges AA, C, D sizes					4.5 oz.	11.99	7.99

*Have tabs to permit soldering leads to battery without damage. §Available in standard stacks of up to 10. ▴Blister pack.

"B" BATTERIES FOR PORTABLE RECEIVERS

"Eveready" No.	Voltage or Size	Overall Dimensions, Inches L. x W. x H.	Contacts	List Price Each	Net Each *	"Eveready" No.	Voltage or Size	Overall Dimensions, Inches L. x W. x H.	Contacts	List Price Each	Net Each *
411	15	1 1/32 x ⅝ x 1 29/64	Flat	$ 2.30	$1.53	477	67½	1 29/32 x 63/64 x 5 7/16	Snap	$13.25	$ 8.84
412	22½	1 1/32 x ⅝ x 2	Flat	2.70	1.81	479	90	1 31/32 x 1 1/32 x 7 15/32	Snap	13.25	8.84
413	30	1 1/32 x ⅝ x 2 9/16	Flat	3.00	2.01	482	45	3 19/32 x 1 27/32 x 5½	Socket	17.55	11.71
415	45	1 3/64 x ⅝ x 3 11/16	Snap♦	4.95	3.30	484	45	3 31/32 x 2 17/32 x 5 5/16	Socket	20.90	13.94
416	67½	1 21/64 x 63/64 x 3½	Snap♦	7.15	4.77	487	45	5⅛ x 2 1/16 x 7¼	Socket	22.05	14.71
417	15	1 15/16 x 31/32 x 1 9/16	Flat	10.00	6.6625	490	90	3 23/32 x 1⅜ x 3 45/64	Snap	14.60	9.74
420	22½	1 5/16 x 31/32 x 2 3/16	Flat	12.50	8.3375	504	15	39/64 x 19/32 x 1⅜	Flat	3.40	2.27
455	45	2 21/32 x 1 x 3 11/16	Snap	10.50	7.00	505	22½	19/32 x 19/32 x 1.975	Flat	4.30	2.86
457	67½	2 13/16 x 1⅜ x 2½	Snap	16.50	11.01	738	45	3 x 2 5/16 x 4⅛	Socket	12.10	8.07
467	67½	2 13/16 x 1⅜ x 3 45/64	Snap	13.75	9.17						

"A" BATTERIES FOR PORTABLE RECEIVERS

717	7½	2 5/32 x 1 15/16 x 3 1/32	Socket	$6.10	$4.07	742	1½	2⅝ x 2⅝ x 3 27/32	Socket	$4.95	$3.30
724	6	1 7/32 x 1 7/32 x 2 11/32	Flat	4.95	3.30	744	6	2⅝ x 2⅝ x 3 27/32	Socket	4.20	2.7925
736	4½	3 15/16 x 1 5/16 x 4	Socket	8.30	5.54						

WRITE US FOR INFORMATION AND PRICING ON ALL NEW OR

UNLISTED ITEMS. NO SPECIAL ORDER NUMBERS NECESSARY,

JUST USE THE MANUFACTURER'S MODEL NUMBERS.

EVEREADY® Batteries

SPECIAL BATTERY TYPES FOR RADIOS, ELECTRONIC EQUIPMENT, PHOTOFLASH AND OTHER APPLICATIONS

"Eveready" No.	Voltage or Size	Overall Dimensions, Inches L. x W. x H.	Terminals and Voltages	Battery Weight	Unit Pkg. Qty.	List Price Each	Net Ea. In Unit Pkg.
EPX30BP▲	3	.955 dia. x .480	Flat Contacts –, +3	0.5 oz.	6	**$ 2.90**	**$ 1.94**
T35‡	C	1 1/32 dia. x 1 15/16	Flat Contacts –, +1½	1.4 oz.	6	**1.30**	**.87**
T50‡	D	1 11/32 dia. x 2 13/32	Flat Contacts –, +1½	3.3 oz.	6	**1.30**	**.87**
425P	22½	1 23/64 x 1 1/32 x 3 15/16	Socket –, +22½	4.1 oz.	1	**12.50**	**8.3375**
460K#	45	1 57/64 x 1⅜ x 2.43	Flat Contacts –, +45	5.3 oz.	1	**16.50**	**10.99**
489	225	4 11/32 x 2 11/16 x 4 3/16	Socket –, +225	2 lb. 12 oz.	2	**44.10**	**29.41**
491	240	2 19/32 x 1 5/16 x 4½	Flat Recessed & Socket –, +240	13 oz.	1	**21.00**	**14.01**
493	300	2 11/16 x 2 7/32 x 3 29/32	Pinjacks –, +300	14.5 oz.	1	**27.85**	**18.58**
496	450	6¾ x 3 x 5	Socket –, +450	5 lb. 4 oz.	1	**104.95**	**70.00**
497	510	3 x 1 19/32 x 5⅝	Flat Recessed –, +180, +510	1 lb. 10 oz.	1	**36.00**	**23.98**
912BP-2	AAA	1 3/32 dia. x 1¾	Flat Contacts –, +1.5	0.3 oz.	12	**.85**	**.57**
EPX825†§	1.5	.905 dia. x .228	Flat Contacts –, +1.5	0.026 oz.	24	**2.80**	**1.87**

CARBON-ZINC LANTERN AND FLASHER BATTERIES

"Eveready" No.	Voltage /Size	Overall Dimensions, Inches L. x W. x H.	Unit Pkg. Qty.	List Price Each	Net Ea. in Unit *
484	45	3 31/32 x 2 17/32 x 5 5/16	1	**$20.90**	**$13.94**
509	6	2⅝ x 2⅝ x 4 13/32	1	**3.19**	**2.12**
510S	6	2⅝ x 2⅝ x 4 5/16	1	**3.60**	**2.40**
520†	6	5 17/32 x 4 21/32 x 2 21/32	1	**18.00**	**12.00**
646	69	2 9/16 x 2⅛ x 8 7/64	2	**23.75**	**15.84**
731	6	5 11/32 x 2 27/32 x 4 15/16	1	**8.59**	**5.72**
732	12	5 11/32 x 2 27/32 x 4 15/16	1	**10.40**	**6.94**
2744N	6	2⅝ x 2⅝ x 3 27/32	1	**3.60**	**2.40**
2780N	12	5 11/32 x 2 27/32 x 4 5/32	1	**19.00**	**12.66**

CARBON-ZINC NO. 6 AND "HOT SHOT"® BATTERIES

EA6††	1½	2⅝ dia. x 6 17/32	1	**$ 5.65**	**$ 3.76**
EA6F■■	1½	2⅝ dia. x 6¾	1	**5.65**	**3.76**
EA6FT♦♦	1½	2⅝ dia. x 6¾	1	**5.65**	**3.76**
EA6ST♦♦	1½	2⅝ dia. x 6 17/32	1	**5.65**	**3.76**
IS6**	1½	2⅝ dia. x 6⅝	1	**5.85**	**3.90**
IF6**	1½	2⅝ dia. x 6⅝	1	**5.85**	**3.90**
1461••	6	10 7/16 x 2 23/32 x 7 7/32	1	**18.40**	**12.27**
1463••	12	10 7/16 x 2 23/32 x 7 7/32	1	**32.45**	**21.64**
1562••	7½	7 27/32 x 4 31/32 x 7 7/32	1	**28.35**	**18.91**
1862••	12	10¼ x 5¼ x 6⅝	1	**43.90**	**29.27**

CARBON-ZINC SPECIAL LIGHTING AND HOBBY BATTERIES

706	6	8 /16 x 2 13/16 x 6 7/16	1	**$23.75**	**$15.84**
711	F	2⅝ x 1 5/16 x 4 1/32	1	**6.10**	**4.07**
715	7½	7¼ x 4 1/16 x 6 7/16	1	**22.50**	**15.00**
716	9	8 37/64 x 4 1/16 x 6 7/16	1	**24.50**	**16.33**
735	1½	2⅝ x 2⅝ x 4 5/16	1	**4.10**	**2.73**

SPECIAL BATTERIES FOR RADIOS, ELECTRONIC EQUIPMENT, TEST INSTRUMENTS, AND OTHER APPLICATIONS

"Eveready" No.	Voltage /Size	Overall Dimensions, Inches L. x W. x H.	Unit Pkg. Qty.	List Price Each	Net Ea. in Unit Pkg.
W353	1½	2 19/32 x 1⅜ x 4 5/32	1	**$ 6.60**	**$ 4.40**
W356	3	2⅝ x 2⅝ x 4 9/16	1	**15.45**	**10.31**
W357	3	3 25/32 x 2 11/16 x 5 13/16	1	**14.30**	**9.55**

FLASHLIGHT BATTERIES—FOR TOYS, GAMES, ETC.

904•	N	0.455 dia. x 1.180	6	**$0.38**	**$0.245**
912§	AAA	1 3/32 dia. x 1¾	12	**.43**	**.245**
935▲	C	1 1/32 dia. x 1 15/16	24	**.525**	**.34**
935-2	C	1 1/32 dia. x 1 15/16	24	**1.05**	**.68**
935-4	C	1 1/32 dia. x 1 15/16	18	**1.79**	**1.19**
950▲	D	1 11/32 dia. x 2 13/32	48	**.525**	**.34**
950-2	D	1 11/32 dia. x 2 13/32	24	**1.05**	**.68**
950-4	D	1 11/32 dia. x 2 13/32	18	**1.79**	**1.19**
1150§	D	1 11/32 dia. x 2 13/32	48	##	##

HEAVY DUTY BATTERIES

1209	6	2⅝ x 2⅝ x 4 13/32	1	**$4.49**	**$2.92**
1215	1½	9/16 dia. x 1 31/32	24	**.60**	**.39**
1215BP-2▲	1½	9/16 dia. x 1 31/32	12	**1.20**	**.79**
1215BP-4▲	1½	9/16 dia. x 1 31/32	12	**2.16**	**1.42**
1222	9	1 13/32 x 11/16 x 1 15/16	12	**1.69**	**1.10**
1222BP▲	9	1 1/32 x 11/16 x 1 15/16	12	**1.69**	**1.11**
1222BP-2▲	9	1 1/32 x 11/16 x 1 15/16	12	**2.68**	**1.74**
1235-2	1½	1 1/32 dia. x 1 15/16	24	**1.50**	**.95**
1235BP-2▲	1½	1 1/32 dia. x 1 15/16	12	**1.50**	**.96**
1250-2	1½	1 11/32 dia. x 2 13/32	24	**1.50**	**.95**
1250BP-2▲	1½	1 11/32 dia. x 2 13/32	12	**1.50**	**.96**

CARBON-ZINC INSTRUMENT BATTERIES

714	4½	3 31/32 x 1 11/32 x 3¾	1	**$15.35**	**10.24**
750	3	1 1/32 x ⅝ x 2 21/32	1	**5.80**	**3.8625**
762S	45	4 3/32 x 2 9/16 x 5 7/16	1	**24.25**	**16.17**
763	22½	3½ x 2 3/32 x 3 1/16	1	**10.70**	**7.14**

PREMIUM SERVICE ALKALINE BATTERIES FOR RADIO, PHOTOFLASH, TOYS, HIGH DRAIN ELECTRONIC APPLICATIONS

"Eveready" No.	Voltage	Overall Dimensions, Inches L. x W. x H.	Unit Pkg. Qty.	List Price Each	Net Ea. In Unit Pkg.
EPX30BP	3.0	.960 dia. x .485	6	**$2.90**	**$1.94**
E89	1.5	.563 dia. x 1.087	2	**2.48**	**1.62**
E90‡	1.5	.470 dia. x 1.13	12	**1.20**	**.78**
E90BP-2▲	1.5	.470 dia. x 1.13	6	**2.40**	**1.58**
E91‡#	1.5	9/16 dia. x 1 31/32	24	**1.15**	**.7475**
E91BP-2▲	1.5	9/16 dia. x 1 31/32	12	**2.30**	**1.515**
E91BP-4▲	1.5	9/16 dia. x 1 31/32	12	**4.30**	**2.81**
E92‡	1.5	.410 dia. x 1.745	12	**1.15**	**.7475**
E92BP-2▲	1.5	.410 dia. x 1.745	12	**2.30**	**1.515**
E93‡	1.5	1 1/32 dia. x 1 15/16	12	**1.50**	**.98**
E93BP-2▲	1.5	1 1/32 dia. x 1 15/16	12	**3.00**	**1.97**
E95‡	1.5	1 11/32 dia. x 2 13/32	12	**1.50**	**.98**
E95BP-2▲	1.5	1 11/32 dia. x 2 13/32	12	**3.00**	**1.97**

"Eveready" No.	Voltage	Overall Dimensions, Inches L. x W. x H.	Unit Pkg. Qty.	List Price Each	Net Ea. In Unit Pkg.
522BP▲	9.0	1 1/32 x 11/16 x 1 5/16	12	**$3.00**	**$1.97**
523	4.5	.662 dia. x 1.965	1	**3.50**	**2.32**
523BP▲	4.5	.662 dia. x 1.965	6	**3.50**	**2.33**
531§	4.5	.662 dia. x 2.290	6	**3.60**	**2.39**
531BP▲	4.5	.662 dia. x 2.290	1	**3.60**	**2.40**
532§	3.0	.664 dia. x 1.670	1	**3.20**	**2.13**
532BP▲	3.0	.664 dia. x 1.670	1	**3.20**	**2.14**
538BP▲	4.5	1.60 x .670 x .450	1	**3.80**	**2.55**
539BP▲	6.0	1.4 x .355 x 1.898	6	**3.30**	**2.21**
EPX825§	1.5	.905 dia. x .228	24	**2.80**	**1.87**

*Silver chem. system. †Alkaline. ‡For electric clocks. #Includes one No. 460 battery and one No. 428 lamp. §Available in Blister Pack of 2. •Available in Blister Pack of 4. *In unit pkg. of 1. ■In unit pkg. of 6. ɪIn unit pkg. of 24. ‡In unit pkg. of 48. ♦Miniature. **Ignitor® gen. purpose 6: IS6 = screw terms.; IF6, Fahnstock. ##**Prices on Request.** ••Hot Shot. ■■Fahnstock terms. ▲Blister pack. ♦♦Wire –, Fahnstock clips.

WATCH AND CALCULATOR BATTERIES—TEAR-STRIP PACKAGING

"Eveready" No.	Chemical System	Volts	Unit Pkg. Qty.	List Price Each	Net Each
201	Silver Oxide	1.5	5	**$5.50**	**$3.44**
301	Silver Oxide	1.5	5	**2.60**	**1.56**
303	Silver Oxide	1.5	5	**3.10**	**1.86**
309	Silver Oxide	1.5	5	**2.35**	**1.41**
313	Mercury	1.35	5	**2.05**	**1.23**
323	Mercury	1.35	5	**1.60**	**.96**
325	Mercury	1.35	5	**2.05**	**1.23**
343	Mercury	1.35	5	**1.60**	**.96**
344	Silver Oxide	1.5	5	**2.60**	**1.56**
350	Silver Oxide	1.5	5	**2.70**	**1.62**
354	Mercury	1.35	5	**2.05**	**1.23**
355	Silver Oxide	1.5	5	**5.00**	**3.00**
357	Silver Oxide	1.5	5	**3.10**	**1.86**
362	Silver Oxide	1.5	5	**1.95**	**1.17**
384	Silver Oxide	1.5	5	**1.70**	**1.02**

"Eveready" No.	Chemical System	Volts	Unit Pkg. Qty.	List Price Each	Net Each
381	Silver Oxide	1.5	5	**$1.95**	**$1.17**
386	Silver Oxide	1.5	5	**2.40**	**1.44**
387	Mercury	1.35	5	**2.50**	**1.56**
388	Mercury	1.35	5	**2.05**	**1.23**
389	Silver Oxide	1.5	5	**2.10**	**1.26**
390	Silver Oxide	1.5	5	**2.35**	**1.41**
391	Silver Oxide	1.5	5	**1.90**	**1.14**
392	Silver Oxide	1.5	5	**1.45**	**.87**
393	Silver Oxide	1.5	5	**2.10**	**1.26**
394	Silver Oxide	1.5	5	**2.20**	**1.32**
395	Silver Oxide	1.5	5	**2.05**	**1.23**
396	Silver Oxide	1.5	5	**2.00**	**1.20**
397	Silver Oxide	1.5	5	**2.05**	**1.23**
399	Silver Oxide	1.5	5	**2.00**	**1.20**

EVEREADY® Batteries

MERCURY, MnO_2, AND SILVER OXIDE BATTERIES FOR RADIO, ELECTRONIC AND INDUSTRIAL APPLICATIONS

"Eveready" No.	Voltage	Overall Dimensions, Inches L. x W. x H.	Terminals and Voltages	Battery Weight	Unit Pkg. Qty.	List Price Each	Net Each in Unit Pkg.
E1	1.4	.625 dia. x .645	Flat Contacts –, +1.4	0.43 oz.	4	$ 2.40	$ 1.60
E1N	1.35	.625 dia. x .645	Flat Contacts –, +1.35	0.43 oz.	4	2.60	1.70
EPX1BP▴	1.35	.625 dia. x .650	Flat Contacts –, +1.35	0.43 oz.	6	2.50	1.675
E4	1.35	1.195 dia. x .660	Flat Contacts –, +1.35	1.6 oz.	4	5.60	3.74
E9	1.4	.550 dia. x 1.968	Flat Contacts –, +1.4	1.05 oz.	4	3.20	2.13
E12	1.4	.640 dia. x 1.968	Flat Contacts –, +1.4	1.4 oz.	2	5.00	3.34
E12N	1.35	.625 dia. x 1.963	Flat Contacts –, +1.35	1.4 oz.	2	5.50	3.67
EPX13BP	1.35	.615 dia. x .238	Flat Contacts –, +1.35	0.14 oz.	6	2.10	1.40
AC13E-3	1.5	.310 dia. x .210	Flat Contacts –, +1.5	0.03 oz.	1	3.99	2.67
AC13E-3BP	1.5	.310 dia. x .210	Flat Contacts –, +1.5	0.03 oz.	6	4.03	2.70
E13E-6	1.4	.310 dia. x .210	Flat Contacts –, +1.4	0.04 oz.	1	3.84	2.56
E13E-6BP	1.4	.310 dia. x .210	Flat Contacts –, +1.4	0.04 oz.	6	3.88	2.59
S13E-6	1.5	.310 dia. x .210	Flat Contacts –, +1.5	0.04 oz.	1	7.20	4.80
S13E-6BP▴	1.5	.310 dia. x .210	Flat Contacts –, +1.5	0.04 oz.	6	7.24	4.83
EPX14BP	2.7	.655 dia. x .607	Flat Contacts –, +2.7	0.3 oz.	6	3.80	2.54
EPX23BP	5.4	.600 dia. x .787	Flat Contacts –, +5.6	0.12 oz.	6	2.80	1.87
EPX25BP	4.05	.660 dia. x .845	Flat Contacts –, +4.05	0.45 oz.	6	4.60	3.07
AC41E-3	1.5	.455 dia. x .165	Flat Contacts –, +1.5	0.05 oz.	1	3.99	2.67
AC41E-3BP	1.5	.455 dia. x '165	Flat Contacts –, +1.5	0.05 oz.	6	4.03	2.70
E41E-6	1.4	.455 dia. x .162	Flat Contacts –, +1.4	0.07 oz.	1	3.96	2.64
E41E-6BP	1.4	.455 dia. x .165	Flat Contacts –, +1.4	0.07 oz.	6	4.00	2.67
S41E-6♦	1.5	.455 dia. x .162	Flat Contacts –, +1.5	0.07 oz.	1	9.00	6.00
S41E-6BP▴♦	1.5	.455 dia. x .162	Flat Contacts –, +1.5	0.06 oz.	6	9.04	6.03
E42N‡	1.35	1.195 dia. x 2.390	Flat Contacts –, +1.5	5.85 oz.	1	12.40	8.27
A76BP■	1.5	.455 dia. x .211	Flat Contacts –, +1.5	0.08 oz.	6	.99	.62
S76E-6♦	1.5	.455 dia. x .211	Flat Contacts –, +1.5	0.08 oz.	1	12.00	8.00
S76E-6BP▴♦	1.5	.455 dia. x .211	Flat Contacts –, +1.5	0.08 oz.	6	12.04	8.03
E126	8.4	.744 dia. x 2	Flat Contacts –, +8.4	1.65 oz.	6	7.90	5.27
E132	2.8	.661 dia. x 1.315	Flat Contacts –, +2.8	0.94 oz.	2	3.30	2.20
E132N	2.7	.662 dia. x 1.295	Flat Contacts –, +2.7	0.95 oz.	2	5.20	3.47
E133	4.2	.661 dia. x 1.965	Flat Contacts –, +4.2	1.42 oz.	6	6.40	4.28
E133N	4.05	.662 dia. x 1.945	Flat Contacts –, +4.05	1.42 oz.	2	7.50	5.00
E134	5.6	.661 dia. x 2.615	Flat Contacts –, +5.6	1.89 oz.	2	6.50	4.34
E134N	5.4	.662 dia. x 2.595	Flat Contacts –, +5.4	1.89 oz.	2	8.00	5.34
E135N	6.75	.662 dia. x 3.245	Flat Contacts –, +6.75	2.37 oz.	2	9.60	6.40
E136	8.4	.661 dia. x 3.915	Flat Contacts –, +8.4	2.86 oz.	2	8.60	5.74
E146X	8.4	1.031 x .660 x 1¾	Min. Snap –, +8.4	1.6 oz.	6	7.00	4.67
E164	5.6	.661 dia. x 1.767	Flat Contacts –, +5.6	1.2 oz.	6	5.40	3.60
E164N	5.4	.662 dia. x 1.743	Flat Contacts –, +5.4	1.2 oz.	2	7.20	4.80
E165	7.0	.661 dia. x 2.207	Flat Contacts –, +7	1.5 oz.	2	7.00	4.67
EP175	7.0	½ dia. x $1\tfrac{3}{32}$	Flat Contacts –, +7	1 oz.	1	4.20	2.80
E177	9.0	$\tfrac{35}{64}$ dia. x $1\tfrac{29}{32}$	Min. Snap –, +9.0	0.8 oz.	1	6.00	4.00
186BP■	1.5	.455 dia. x .165	Flat Contacts –, +1.5	0.05 oz.	6	.99	.62
189BP■	1.5	.455 dia. x .120	Flat Contacts –, +1.5	0.04 oz.	6	.99	.62
191BP■	1.5	.455 dia. x .081	Flat Contacts –, +1.5	0.03 oz.	6	.99	.62
E286	8.4	1 dia. x $1\tfrac{15}{16}$	Flat Contacts –, +8.4	1.6 oz.	1	8.70	5.80
E289	12.6	1 dia. x $2\tfrac{13}{32}$	Snap Type –, +12.6	3.6 oz.	6	12.00	8.00
301BP	1.5	.455 dia. x .155	Flat Contacts –, +1.5	0.06 oz.	6	2.60	1.56
303BP▴♦	1.5	.455 dia. x .220	Flat Contacts –, +1.5	0.09 oz.	6	3.10	1.86
AC312E-3	1.5	.310 dia. x .140	Flat Contacts –, +1.5	0.02 oz.	1	3.99	2.67
E312E-6	1.4	.310 dia. x .140	Flat Contacts –, +1.4	0.03 oz.	1	3.96	2.64
S312E-6	1.5	.310 dia. x .140	Flat Contacts –, +1.5	0.03 oz.	1	6.00	4.00
323BP▴	1.35	.310 dia. x .210	Flat Contacts –, +1.35	0.05 oz.	6	1.60	.96
343BP▴	1.35	.455 dia. x .138	Flat Contacts –, +1.35	0.05 oz.	6	1.60	.96
357BP▴♦	1.5	.455 dia. x .211	Flat Contacts –, +1.5	0.08 oz.	6	3.10	1.86
362BP♦	1.5	.310 dia. x .081	Flat Contacts –, +1.5	0.02 oz.	6	1.95	1.17
364BP♦	1.5	.267 dia. x .085	Flat Contacts –, +1.5	0.01 oz.	6	1.95	1.17
381BP▴♦	1.5	....	Flat Contacts –, +1.5	0.06 oz.	6	1.95	1.17
386BP▴♦	1.5	.455 dia. x .165	Flat Contacts –, +1.5	0.06 oz.	6	2.40	1.44
389BP▴	1.5	.455 dia. x .118	Flat Contacts –, +1.5	0.05 oz.	6	2.10	1.26
391BP▴♦	1.5	....	Flat Contacts –, +1.5	0.06 oz.	6	1.90	1.14
392BP▴♦	1.5	.310 dia. x .140	Flat Contacts –, +1.5	0.02 oz.	6	1.45	.87
393BP▴♦	1.5	.310 dia. x .210	Flat Contacts –, +1.5	0.04 oz.	6	2.10	1.26
396BP♦	1.5	.310 dia. x .105	Flat Contacts –, +1.5	0.02 oz.	6	2.00	1.20
399BP♦	1.5	.374 dia. x .105	Flat Contacts –, +1.5	0.03 oz.	6	2.00	1.20
E400NBP▴	1.35	.455 dia. x .135	Flat Contacts –, +1.35	0.04 oz.	6	2.20	1.46
E401-E2‡	1.4	.455 dia. x 1.130	Flat Contacts –, +1.4	0.4 oz.	1	3.12	2.08
EP401E-2‡	1.4	0.453 dia. x 1.140	Flat Contacts –, +1.4	.44 oz.	1	3.80	2.53
E401N	1.35	.470 dia. x 1.130	Flat Contacts –, +1.35	0.42 oz.	2	3.00	2.00
E431BP	11.2	1.030 dia. x 3.200	Snap Type –, +11.2	4.1 oz.	6	11.90	7.94
544BP▴♦	6.0	.510 dia. x .990	Flat Contacts –, +6.0	0.5 oz.	6	9.90	6.60
A544BP■	6.0	.510 dia. x .990	Flat Contacts –, +6	0.039 oz.	6	3.80	2.53
E575E	1.4	.455 dia. x .138	Flat Contacts –, +1.4	0.05 oz.	6	.70	.47
E601	1.35	.627 dia. x 1.140	Flat Contacts –, +1.35	1.22 oz.	2	3.90	2.60
E625	1.4	.615 dia. x 0.238	Flat Contacts –, +1.4	0.15 oz.	4	1.54	1.03
EPX625BP▴	1.35	.615 dia. x 0.238	Flat Contacts –, +1.4	0.15 oz.	6	2.10	1.40
E630	1.4	.615 dia. x 0.238	Flat Contacts –, +1.4	0.17 oz.	4	1.72	1.15
E640	1.4	.625 dia. x 0.440	Flat Contacts –, +1.4	0.28 oz.	2	2.20	1.46
EPX640BP▴	1.35	.625 dia. x 0.440	Flat Contacts –, +1.35	0.13 oz.	6	2.30	1.54
AC675E-3	1.5	.455 dia. x .200	Flat Contacts –, +1.5	0.07 oz.	1	3.99	2.67
AC675E-3BP	1.5	.455 dia. x .200	Flat Contacts –, +1.5	0.07 oz.	6	4.03	2.70
EPX675BP▴	1.35	.455 dia. x 0.205	Flat Contacts –, +1.35	0.09 oz.	6	2.00	1.33
E675E-6	1.4	.455 dia. x .210	Flat Contacts –, +1.4	0.09 oz.	1	3.84	2.56
EP675E-6BP▴	1.4	.455 dia. x .210	Flat Contacts –, +1.4	0.09 oz.	6	4.00	2.67
E304116BP	12.6	1.030 dia. x 3·200	Snap Type –, +12.6	4.5 oz.	6	11.90	7.94

‡Blister pack of 2; ▴Blister pack. ♦Silver oxide. ■ MnO_2 Types.

HERCULES INDUSTRIAL BATTERIES—PRICES ON REQUEST

"Hercules" No.	Voltage or Size	Terminals or Contacts	Unit Pkg. Qty.	Std. Pkg. Qty.
HS6	#6	Screw Terminals	1	12
HS10S	6 V	Screw Terminals	1	12
HS15	AA	Flat Contacts	24	192
HS22	9 V	Miniature Snaps	12	72
HS31	6 V	Knurl Nut & Screw	1	6
HS35	C	Flat Contacts	24	192

"Hercules" No.	Voltage or Size	Terminals or Contacts	Unit Pkg. Qty.	Std. Pkg. Qty.
HS50	D	Flat Contacts	24	192
HS90	6 V	Spring Terminals	1	12
HS91	AA	Flat contacts	24	144
HS93	C	Flat contacts	12	72
HS95	D	Flat Contacts	12	72
HS150	D	Flat Contacts	24	192

EVEREADY® Flashlights & Lanterns

FLASHLIGHTS

PREMIUM-QUALITY ENERGIZER® FLASHLIGHTS

Feature quality copper-nickel-chrome plating on heavy duty steel. Styled for beauty; built to last. Pushbutton switch. End loading with ring hanger. Built-in bulb protector prevents shock damage. Batteries not supplied.

Eveready Model 9231 2-Cell Jr. Flashlight†—Uses two C cells and No. PR4 lamp. Net Each. **$3.65**

Eveready Model 9251 2-Cell Spotlight†—Uses two D cells and No. PR2 lamp. Net Each. **$3.72**

Eveready Model 9351 3-Cell Spotlight†—Uses three D cells and No. PR3 lamp. Net Each. **$4.33**

Eveready Model 9352 3-Cell Searchlight—Uses three D cells and No. PR3 lamp. Net Each. **$7.45**

Eveready Model 9652 6-Cell Convertible Searchlight—Case convertible to 3-cell type. Uses six D cells and No. PR18 lamp. Net Each. **$8.665**

Eveready Model 9951 2-Cell Magnet Lite—Sculptured magnet switch. Uses two D cells and No. PR2 lamp. Net Each. . **$4.00**

†With lock switch.

WATERPROOF/FLOATING FLASHLIGHTS

Shatterproof case and lens. Not affected by oil, grease or water. Sealtight rubber gaskets. Built-in bulb protector prevents shock damage. End loading with hanger. Replaceable waterproof switch with flasher button. Spare bulb in end cap. Batteries not supplied. U.S. Coast Guard approved.

Eveready Model 304 2-Cell Flashlight—Uses 2 D cells and No. PR6 lamp. Net Each. **$5.84**

Eveready Model 305 3-Cell Flashlight—Used 3 D cells and No. PR7 lamp. Net Each. **$6.40**

Eveready Model 306 2-Cell Floating Flashlight—Has high-visibility yellow case and night-glow end cap. Uses 2 D cells and No. PR2 lamp. Net Each. **$7.34**

INDUSTRIAL FLASHLIGHTS

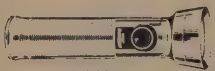
Molded tough, high density polyethylene insulated case withstands rugged use in extreme temperatures; impervious to water, gasoline, alcohol, and most acids, greases, and oils. Red safety-glow guard, contoured to prevent rolling, forms shock resistant shield around the lens and bulb. Built-in metal hanging ring; has replaceable slide-switch. Batteries not supplied.

Eveready Model 1251—Uses two D cells and No. PR6 lamp. Net Each. **$3.13**

Eveready Model 1351—Uses three D cells and No. PR7 lamp. Net Each. **$3.67**

Eveready Model 1259—Approved by U.S. Bureau of Mines; UL Listed. Uses two D cells and No. PR6 lamp. Net Each. . . **$4.40**

Eveready Model 1359—Approved by U.S. Bureau of Mines; UL Listed. Uses three D cells and PR7 lamp. Net Each. **$4.93**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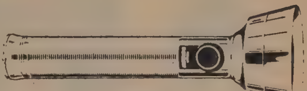
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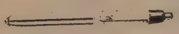
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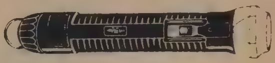
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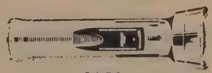
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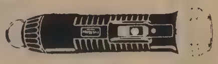
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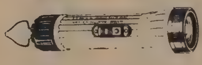
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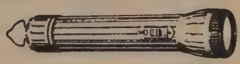
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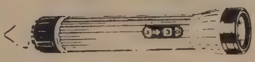

305

ENERGIZER® PENLIGHT

Eveready Model 9212 Energizer Penlight—Handsome, tooled instrument provides bright, piercing beam of light. Has easy-to-use Touch Tip, pushbutton switch, spring-steel pocket clip, and lustrous copper-nickel-chrome plated steel case. Uses two No. 912 AAA cells and No. 224 lamp. Net Each, less batteries. . . **$1.86**

MAGNETIZED AND GENERAL-PURPOSE TYPES

Eveready No.	Description	Lamp No.	Battery No.	Battery Size	Net Each*
331	2-cell Magnet Lite	PR2	2	D	$2.125
330	2-cell Utility Lite (black)	PR2	2	D	1.72

*Less batteries.

LANTERNS

WATERPROOF/FLOATING LANTERNS

Tough compact cases resist most chemicals and temperature extremes. Feature easy-grip handles and weather-proof pushbutton switches. Also have bulb protectors, non-tarnishing reflectors and snap off lens rings. Use 509 batteries and PR13 bulbs. Batteries not included.

Eveready Model 459 Safety Lantern—Meets MIL F-3747A specification of immersion to 3 feet for 1 hour without leakage. UL Listed for use in Class 1, Groups C, D gas-air mixtures such as air and gasoline, natural gas, ethyl ether, alcohols, naphtha. Net Each. **$7.93**

Eveready Model 108 Lightweight Lantern—Red case and lens ring, with unbreakable lens.—Net Each. **$4.66**

HEAVY-DUTY SEALED BEAM CAPTAIN® LANTERNS

Heavy-duty sealed beam lamp; up to 1 mile visibility. Weather-proof push-button switches and wiring; corrosion-resistant brass contacts. Lamp adjusts 90 degrees. Heavy-gauge, rust-resistant chrome-plated steel base shields top of battery. Complete with No. 731 lantern battery. Available with or without marine-type beacon flasher.

Eveready Model 9100WB Captain Lantern With Beacon Flasher—Complete with No. 407 signal lamp and No. 731 lantern battery. Has red fresnel flasher lens. Net Each. **$22.74**

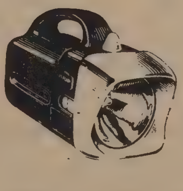
Eveready Model 9101WB Captain Lantern Without Beacon Flasher—Complete with No. 731 lantern battery. Net Each. **$21.24**

SEALED BEAM COMMANDER® LANTERNS

Reliable, sturdy lantern for outdoors and emergency lighting. Bright 6,000 candlepower sealed beam lamp. Constructed of high-impact ABS material. Lamp swivels 125 degrees. Single push-button control. Red case with chrome-plated lens ring. Available with or without emergency flasher. Complete with No. 731 battery.

Eveready Model 5154WB Commander Lantern With Emergency Flasher—Has red fresnel flasher lens. Net Each. **$19.575**

Eveready Model 5155WB Commander Lantern Without Emergency Flasher—Net Each. **$18.24**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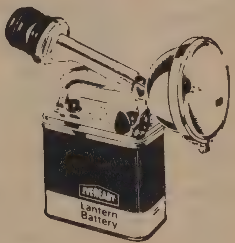

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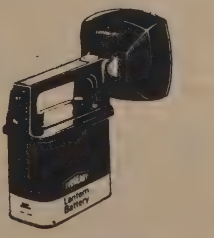

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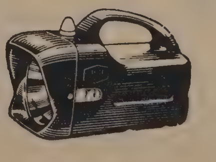
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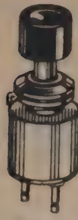
ALCO
ELECTRONIC PRODUCTS, INC.

PUSHBUTTON SWITCHES

ALCOSWITCH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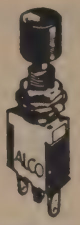
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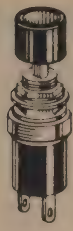
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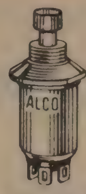
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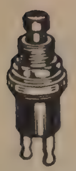
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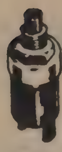
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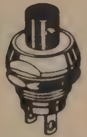
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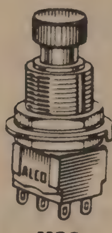
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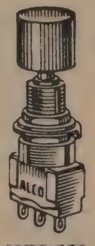

MPA-106

MSP SERIES MINIATURE PUSHBUTTON SWITCHES

MSP-105, MSP-205—Snap action. Rated 6 A, 125 VAC. Solid silver contacts and terminals. Bushing ¼"-40 with keyway. Black phenolic case. Life, 25,000 cycles. **MSP-103**—Economy, low pressure operation. Rated 1 A, 125 VAC. Silver-plated brass contacts and terminals. Plunger travel, .098". Bushing ¼"-40. Diameter .408". **MSPS-103C**—Similar to MSP-103, but smaller diameter, .310". Rated 0.5 A at 125 VAC.

Alcoswitch No.	Contacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MSP-105D	SPDT	Push on-off	$3.55	$3.02	$2.84	$2.66
MSP-105F	SPDT	Momentary	3.55	3.02	2.84	2.66
MSP-205N	DPDT	Push on-off	4.50	3.83	3.60	3.38
MSP-205R	DPDT	Momentary	4.50	3.83	3.60	3.68
MSP-103B	SPST	N.C., (Black)	1.45	1.23	1.16	1.09
MSP-103C	SPST	N.O., (Red)	1.45	1.23	1.16	1.09
MSP-103C-B	SPST	N.O., (Black)	1.45	1.23	1.16	1.09
MSP-103C-2	SPST	N.O., (Red)	1.55	1.32	1.24	1.16
MSPS-103B	SPST	N.C., (Black)	.80	.68	.64	.60
MSPS-103C	SPST	N.O., (Red)	.80	.68	.64	.60
MSPS-103C-B	SPST	N.O., (Black)	.80	.68	.64	.60

BUTTONS FOR MSP SERIES

Alcoswitch No.	Description	Net Each, Lots of 1-24	26-49	50-99	100-499
C-12	Plastic button for MSP-105	$0.22	$0.20	$0.18	$0.17
C-13	Large plastic button for MSP-105	.29	.26	.24	.22
C-14	Small chrome button for MSP-105	.22	.20	.18	.17
C-14L	Large chrome button for MSP-105	.27	.24	.23	.20

MPB SERIES MINIATURE PUSHBUTTON SWITCHES

MPB-103 miniature momentary pushbuttons have over-travel to provide 3 A @ 125 VAC rating. Normally open types have snap-on .395" dia. button; normally closed types have black button.

Alcoswitch No.	Contacts	Description	Net Each, Lots of 1-24	26-49	50-99	100-249
MPB-103B	SPST	N.C.	$1.75	$1.49	$1.40	$1.31
MPB-103C	SPST	N.O.	1.75	1.49	1.40	1.31

MSPF SERIES MOMENTARY PUSHBUTTON

Series features large button and 15-32 body. Allows choice of front or rear panel mounting. Unique contact design allows self-leveling, assuring minimum contact resistance. All models have epoxy seals on terminals. Choice of button color.

Alcoswitch No.	Contacts	Description	Net Each, Lots of 1-24	26-49	50-99	100-249
MSPF-101B	SPST	N.C. (Black)	$1.95	$1.66	$1.56	$1.46
MSPF-101C	SPST	N.O. (Red)	1.95	1.66	1.56	1.46
MSPF-101BC	2 Ckt.	N.O./N.C.*	2.35	2.00	1.88	1.76

*Specify color: **0**—Black; **2**—Red; **6**—Blue; **9**—White.

MAGNETIC REED PUSHBUTTON SWITCHES

SPST momentary for data processing equipment; ceramic magnets eliminate springs. Contacts are glass-encapsulated reeds for long life; plunger is keyed and non-rotating; metal case withstands abuse. Rated 100 mA at 50 VDC; resistance, 100 milliohms. Contact bounce, 1 msec; plunger travel, 5/64". Oper. force, 2 oz. Life, 10 million cycles.

Alcoswitch No.	Description	Net Each, Lots of 1-24	26-99	50-99	100-499
MSPM-101B*	NC; solder lugs	$5.25	$4.73	$4.46	$4.20
MSPM-101C†	NO; solder lugs	5.25	4.73	4.46	4.20
MSPM-101B-1*	NC; .110" terminal	5.25	4.73	4.46	4.20
MSPM-101C-1†	NO; .110" terminal	5.25	4.73	4.46	4.20
MSPM-101BP	Push-pull	5.35	4.82	4.55	4.28
MSPM-101CP	Push-pull	5.35	4.82	4.55	4.28
MSPM-101BS-1	NC; solder lug	5.05	4.55	4.29	4.04
MSPM-101CS-1	NO; solder lug	5.05	4.55	4.29	4.04
MSPM-101BS	NC; PC terminal	5.05	4.55	4.29	4.04
MSPM-101CS	NO; PC terminal	5.05	4.55	4.29	4.04

*Supplied with C-22 black button. †Supplied with C-22 red button. MSPM Series also accept C23 cap.

GREEN SERIES

MUSTANG PUSHBUTTONS

15/32" bushing with solder lug terminals. PC suffix for PC terminals.

Alcoswitch No.	Contacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MPG-106D	SPDT	Push on/off	$4.35	$3.70	$3.48	$3.26
MPG-106F	SPDT	Momentary	4.35	3.70	3.48	3.26
MPG-206N	DPDT	Push on/off	5.30	4.51	4.24	3.98
MPG-206R	DPDT	Momentary	5.30	4.51	4.24	3.98
MPG-306D	3PDT	Push on/off	6.75	5.74	5.40	5.06
MPG-306F	3PDT	Momentary	6.75	5.74	5.40	5.06
MPG-406N	4PDT	Push on/off	8.75	7.44	7.00	6.56
MPG-206N-PC	DPDT	Push on/off	5.40	4.59	4.32	4.05
MPG-206R-PC	DPDT	Momentary	5.40	4.59	4.32	4.05

Supplied with Black C-9 cap only.

SUBMINIATURE PUSHBUTTON SWITCHES

Subminiature pushbutton switch with one piece bushing and case construction. Current Rating: 3 amps @ 125 VAC D & F Series, 1 amp @ 125 VAC B & C Series. Supplied with black cap, C5.

Alcoswitch No.	Contacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MPA-103B	SPST	N. C. Mom.	$1.65	$1.40	$1.32	$1.24
MPA-103C	SPST	N. O. Mom	1.65	1.40	1.32	1.24
MPA-103D	SPDT	Push on/off	2.95	2.51	2.36	2.21
MPA-103F	SPDT	Momentary	2.95	2.51	2.36	2.21
C-5	Small plastic cap blk, red, grn. or wht.		.11	.10	.09	.08
C-8	Large plastic cap blk, red, grn, or wht		.12	.11	.10	.09

GREEN SERIES

MINIATURE PUSHBUTTONS

Supplied with black C-22 button.

Alcoswitch No.	Contacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MPA-106D	SPDT	Push on/off	$3.55	$3.02	$2.84	$2.66
MPA-106F	SPDT	Momentary	3.55	3.02	2.84	2.66
MPA-206N	DPDT	Push on/off	4.50	3.83	3.60	3.38
MPA-206R	DPDT	Momentary	4.50	3.83	3.60	3.38
MPA-306D	3PDT	Push on/off	5.95	5.06	4.76	4.46
MPA-306F	3PDT	Momentary	5.95	5.06	4.76	4.46
MPA-406N	4PDT	Push on/off	7.95	6.76	6.36	5.96
MPA-406R	4PDT	Momentary	7.95	6.76	6.36	5.96
C-9	Colored cap—red, blue, pink, yel. or wht.		.14	.13	.12	.11

GREEN SERIES

MINIATURE WATERPROOF PUSHBUTTONS

"O" rings inside bushing and at panel.

Alcoswitch No.	Contacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-499
MPE-106D	SPDT	Push on/off	$4.25	$3.61	$3.40	$3.19
MPE-106F	SPDT	Momentary	4.25	3.61	3.40	3.19
MPE-206N	DPDT	Push on/off	5.20	4.42	4.16	3.90
MPE-206R	DPDT	Momentary	5.20	4.42	4.16	3.90
MPE-306D	3PDT	Push on/off	6.65	5.65	5.32	4.99
MPE-306F	3PDT	Momentary	6.65	5.65	5.32	4.99
MPE-406N	4PDT	Push on/off	8.65	7.35	6.92	6.49
MPE-406R	4PDT	Momentary	8.65	7.35	6.92	6.49

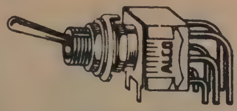
PLASTIC BUTTONS FOR MPA AND MPE SERIES

Alcoswitch No.	Description	Net Each, Lots of 1-24	26-49	50-99	100-499
C-22†	Small button	$0.19	$0.17	$0.16	$0.14
C-23†	Large button	.23	.21	.19	.17
KG-22AB	Grooved, black top	.45	.41	.38	.34
KG-22AR	Grooved, red top	.45	.41	.38	.34
KG-22AG	Grooved, green top	.45	.41	.38	.34

†Specify Red, Black, Green, Blue, Orange or Ivory.

ALCO®
ELECTRONIC PRODUCTS, INC.

SUBMINIATURE TOGGLE & ROCKER SWITCHES ALCOSWITCH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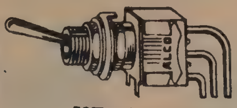
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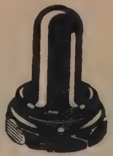
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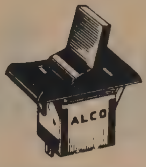
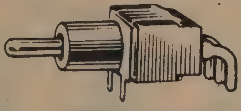

MDS-106-60, SFL Bezel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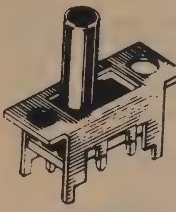
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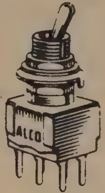
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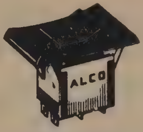
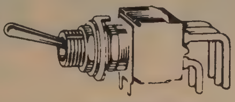

MDS-206-50, SFL Bezel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GREEN SERIES

MINIATURE SHORT LEVER TOGGLE

0.27″ long toggle. PC terminals and ¼-40 threaded bushing.

Alcoswitch No.	Con-tacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MTM-106D-PC	SPDT	On-none-on	$2.30	$1.96	$1.84	$1.73
MTM-106E-PC	SPDT	On-off-on	2.80	2.38	2.24	2.10
MTM-206N-PC	DPDT	On-none-on	3.20	2.72	2.56	2.40
MTM-206P-PC	DPDT	On-off-on	3.75	3.19	3.00	2.81
MTM-206PA-PC	DPDT‡	On-on-on	4.55	3.87	3.64	3.41
MTM-306D-PC	3PDT	On-none-on	5.50	4.68	4.40	4.13
MTM-406N-PC	4PDT	On-none-on	7.15	6.08	5.72	5.36

†Momentary positions. ‡Usable as SP3T; wiring on request.

GREEN SERIES

MINIATURE RIGHT-ANGLE SWITCHES WITH PC TERMINALS

MTM-RA types have 0.27″ long toggle and unthreaded bushing. **MTA-RA** and **MTA-VRA** types have 0.41″ long toggle and ¼-40 threaded bushing. All three types have right-angle PC terminals.

Alcoswitch No.	Con-tacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MTM-106D-RA	SPDT	On-none-on	$2.85	$2.42	$2.28	$2.14
MTM-106E-RA	SPDT	On-off-on	3.35	2.85	2.68	2.51
MTM-106F-RA	SPDT	On-none-on†	3.45	2.93	2.76	2.59
MTM-206N-RA	DPDT	On-none-on	4.25	3.61	3.40	3.19
MTM-206P-RA	DPDT	On-off-on	4.80	4.08	3.84	3.60
MTM-206R-RA	DPDT	On-none-on†	4.90	4.17	3.92	3.68
MTM-106D-VRA	SPDT	On-none-on	2.85	2.42	2.28	2.14
MTM-106E-VRA	SPDT	On-off-on	3.35	2.85	2.68	2.51
MTM-106F-VRA	SPDT	On-none-on†	3.45	2.93	2.76	2.59
MTM-206N-VRA	DPDT	On-none-on	4.25	3.61	3.40	3.19
MTM-206P-VRA	DPDT	On-off-on	4.80	4.08	3.84	3.60
MTM-206R-VRA	DPDT	On-none-on†	4.90	4.17	3.92	3.68
MTA-106D-RA	SPDT	On-none-on	2.80	2.38	2.24	2.10
MTA-106E-RA	SPDT	On-off-on	3.30	2.81	2.64	2.48
MTA-106F-RA	SPDT	On-none-on†	3.40	2.89	2.72	2.55
MTA-206N-RA	DPDT	On-none-on	4.20	3.57	3.36	3.15
MTA-206P-RA	DPDT	On-off-on	4.75	4.04	3.80	3.56
MTA-206R-RA	DPDT	On-none-on†	4.85	4.12	3.88	3.64
MTA-106D-VRA	SPDT	On-none-on	2.80	2.38	2.24	2.10
MTA-106E-VRA	SPDT	On-off-on	3.30	2.81	2.64	2.48
MTA-106F-VRA	SPDT	On-none-on†	3.40	2.89	2.72	2.55
MTA-206N-VRA	DPDT	On-none-on	4.20	3.57	3.36	3.15
MTA-206P-VRA	DPDT	On-off-on	4.75	4.04	3.80	3.56
MTA-206R-VRA	DPDT	On-none-on†	4.85	4.12	3.88	3.64

†Momentary positions. Color caps available. Specify model and color. See Hardware.

SPLASHPROOF SEALS

Seals are made for toggle and pushbutton switching applications. They protect against contaminants such as dirt, gas and liquids. Flexible neoprene is black with choice of black or nickel mount.

Alco-switch No.	Mount Color	Size	Net Each, Lots of 1-24	26-49	50-99	100-249
B-1048	Black	10-48 Toggle	$1.15	$1.06	$0.98	$0.91
B-210	Nickel	¼-40 Toggle	1.30	1.20	1.11	1.03
B-221	Black	¼-40 Toggle	1.30	1.20	1.11	1.03
B-1440	Black	¼-40 Toggle	1.30	1.20	1.11	1.03
B-588	Nickel	15⁄32-32 Toggle	1.35	1.24	1.15	1.07
B-226	Black	15⁄32-32 Toggle	1.35	1.24	1.15	1.07
B-1532	Black	15⁄32-32 Toggle	1.45	1.33	1.23	1.15
BP-1048	Black	10-48 Pushbutton	1.20	1.10	1.02	.95
BP-190	Nickel	¼-40 Pushbutton	1.35	1.24	1.15	1.07
BP-201	Black	¼-40 Pushbutton	1.35	1.24	1.15	1.07
BP-1440	Black	¼-40 Pushbutton	1.35	1.24	1.15	1.07
BP-589	Nickel	15⁄32-32 Pushbutton	1.45	1.33	1.23	1.15
BP-590	Black	15⁄32-32 Pushbutton	1.45	1.33	1.23	1.15
BP-1532	Black	15⁄32-32 Pushbutton	1.45	1.33	1.23	1.15

MINIATURE ROCKER AND PADDLE WITH SNAP-IN MOUNTING

Designed to snap into a rectangular panel cutout. No mounting hardware is required. Mod-styled levers are accentuated by use of attractive mating bezels. Choice of colors available. Features same as MST Series.

Alcoswitch No.	Con-tacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MDS-106D	SPDT	On-none-on	$2.80	$2.38	$2.24	$2.10
MDS-106E	SPDT	On-off-on	3.30	2.81	2.64	2.48
MDS-106F	SPDT	On-none-on†	3.40	2.89	2.72	2.55
MDS-206N	DPDT	On-none-on	3.65	3.10	2.92	2.74
MDS-206P	DPDT	On-off-on	4.20	3.57	3.36	3.15
MDS-206R	DPDT	On-none-on†	4.30	3.66	3.44	3.23

*Specify color: **(0)**—Black; **(2)**—Red; **(8)**—Gray; **(9)**—White.
†Momentary position.

CST SERIES TOGGLE SWITCHES

Low-cost baton lever toggles. DPDT, 3 mA at 125 VAC.

Alcoswitch No.	Description	Net Each, Lots of 1-24	26-49	50-99	100-249
CST-022	DPDT	$1.35	$1.15	$1.08	$1.01
CST-022-1	DPDT	1.35	1.15	1.08	1.01
CST-022N	DPDT	1.45	1.23	1.16	1.09
CST-022S	DPDT	1.45	1.23	1.16	1.09
CST-022RN	DPDT	1.50	1.28	1.20	1.13
CST-022RN	DPDT	1.50	1.28	1.20	1.13
CST-023	DP3T	1.50	1.28	1.20	1.13
CST-023SA	DP3T	1.60	1.36	1.28	1.20
CST-023TA	DP3T	1.60	1.36	1.28	1.20
CST-042N	4PDT	1.80	1.53	1.44	1.20
CST-042S	4PDT	1.80	1.53	1.44	1.35
CST-042RS	4PDT	1.85	1.57	1.48	1.39
CST-042RS	4PDT	1.85	1.57	1.48	1.39
CST-043N	4P3T	1.90	1.62	1.52	1.43
CST-043SA	4P3T	1.95	1.66	1.56	1.46
CST-043TA	4P3T	1.95	1.66	1.56	1.46
CST-062N	6P2T	2.20	1.87	1.76	1.65
CST-062S	6P2T	2.20	1.87	1.76	1.65

MST MINIATURE TOGGLE SWITCHES

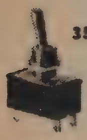
Slim, bat handle toggle switches for miniature applications with limited back-of-panel clearance. Terminals and contacts are solid silver (center terminal, copper with silver plate). Case material, black phenolic resin; ¼-40 threaded bushing. Rated 6 amps at 125 VAC. Offering high capacity for small size, SPDT and DPDT types have life cycle of over 80,000 on-off operations; 3PDT and 4PDT, over 20,000. High voltage barriers between terminals and contacts; 1 piece body.

Alcoswitch No.	Con-tacts	Application	Net Each, Lots of 1-24	26-49	50-99	100-249
MST-105D	SPDT‡	On-none-on	$2.25	$1.91	$1.80	$1.69
MST-105E	SPDT	On-off-on	2.75	2.34	2.20	2.06
MST-105F	SPDT	None-on-on†	2.85	2.42	2.28	2.14
MST-105G	SPDT	On†-off-on†	2.95	2.51	2.36	2.21
MST-105H	SPDT	On-off-on†	2.95	2.51	2.36	2.21
MST-115D*	SPDT	On-none-on	2.10	1.79	1.68	1.58
MST-205N	DPDT‡	On-none-on	3.10	2.64	2.48	2.33
MST-205P	DPDT	On-off-on	3.65	3.10	2.92	2.74
MST-205PA	DPDT‡	On-on-on	4.45	3.78	3.56	3.34
MST-205R	DPDT	None-on-on†	3.75	3.19	3.00	2.81
MST-205S	DPDT	On†-off-on†	3.85	3.27	3.08	2.89
MST-205SA	DPDT‡	On†-on-on†	4.65	3.95	3.72	3.49
MST-205T	DPDT	On-off-on†	3.85	3.27	3.08	2.89
MST-205TA	DPDT‡	On-on-on†	4.65	3.95	3.72	3.49
MST-215N*	DPDT	On-none-on	2.95	2.51	2.36	2.21
MST-305D	3PDT	On-none-on	5.35	4.55	4.28	4.01
MST-305E	3PDT	On-off-on	5.85	4.97	4.68	4.39
MST-305F	3PDT	None-on-on†	5.95	5.06	4.76	4.46
MST-305H	3PDT	On-off-on†	6.05	5.14	4.84	4.54
MST-315D*	3PDT	On-none-on	5.10	4.34	4.08	3.83
MST-405N	4PDT	On-none-on	6.95	5.91	5.56	5.21
MST-405P	4PDT	On-off-on	7.45	6.33	5.96	5.59
MST-415N*	4PDT	On-none-on	6.60	5.61	5.28	4.95

GC ELECTRONICS

Switches

TOGGLE SWITCHES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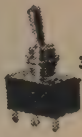
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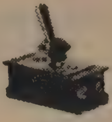
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35-084

35-170

35-186

35-188

35-110

35-116

A variety of bat, ball and paddle type toggle switches designed for use in appliances and instrumentation panels of all types. Switching mechanisms are completely encased in dust-free housings.

BAT HANDLE

G.C. No.	Contacts			Terminals	Bushing	Net Each
	Amps @ 125 V	Circuit	Action			
TWO POSITION						
35-000‡	3	On-Off	SPST	Solder	......	$1.68
35-001‡	3	On-On	SPDT	Solder	......	1.63
35-002‡	3	On-On	DPDT	Solder	......	1.95
35-004	5	On-On	SPDT	Solder	¼-40	2.10
35-010	5	On-On	DPDT	Solder	¼-40	3.33
35-014	5	On-On†	DPDT	Solder	¼-40	3.95
35-024	5	On-On	3PDT	Solder	¼-40	4.95
35-036	5	On-On	4PDT	Solder	¼-40	5.95
35-064	3	On-Off	SPST	Solder	15/32-32	1.50
35-076	3	On-Off†	SPST	Solder	15/32-32	9.95
35-078	15	On-Off	SPST	Solder	15/32-32	3.28
35-080	15	On-Off	SPST	Screw	15/32-32	3.48
35-084	6	On-Off	SPST	Solder	15/32-32	3.70
35-112	6	On-Off	DPST	Solder	15/32-32	4.33
35-114	3	On-Off	SPDT	Solder	15/32-32	4.93
35-116	3	On-Off†	SPDT	Solder	15/32-32	10.95
35-124	6	On-Off	DPST	Solder	15/32-32	5.47
35-126	16	On-Off	DPST	Screw	15/32-32	5.57
35-132	3*	On-On	DPDT	Solder	15/32-32	1.68
35-144	15	On-On	DPDT	Solder	15/32-32	5.95
35-146	15	On-On	DPDT	Screw	15/32-32	7.68
35-152	6	On-On	DPDT	Solder	15/32-32	5.62
35-154	6	On-Off†	DPDT	Solder	15/32-32	9.97
35-158ǂ	10	On-Off	SPST	Solder	15/32-32	6.63
35-160	3	On-Off	SPST	Solder	15/32-32	3.37
35-168	3	On-On	DPDT	Solder	15/32-32	7.95
THREE POSITION						
35-012	5	On-Off-On	DPDT	Solder	¼-40	$3.60
35-016	5	On-Off-On†	DPDT	Solder	¼-40	4.60
35-018	5	On-Off-On†	DPDT	Solder	¼-40	3.95
35-026	5	On-Off-On	3PDT	Solder	¼-40	4.95
35-038	5	On-Off-On	4PDT	Solder	¼-40	6.40
35-110	15	On-Off-On	SPDT	Screw	15/32-32	4.75
35-148	15	On-Off-On	DPDT	Screw	15/32-32	7.87
35-149	15	On-Off-On	DPDT	Solder	15/32-32	6.95

†Momentary position (spring return). *Rating at 250 VAC. ǂIlluminated. ‡Subminiature.

BALL HANDLE

G.C. No.	Contacts			Terminals	Bushing	Net Each
	Amps @ 125 V	Circuit	Action			
35-170	6	On-Off	SPST	Screw	15/32-32	$2.15

PADDLE HANDLE

G.C. No.	Contacts			Terminals	Mtg. Ctrs./ Bushing	Net Each
	Amps @ 125 V	Circuit	Action			
TWO POSITION						
35-180	10	On-Off	SPST	Solder▲	15/32-32	$2.55
35-182	10	On-On	SPDT	Solder▲	15/32-32	2.90
35-186	6	On-On	DPDT	Solder	15/32-32	5.22
35-300	3	On-Off	SPST	Solder	......	3.00
35-316	6	On-On	SPDT	Solder	......	1.83
35-065	8	On-On	SPDT	Solder	......	2.97
35-067	8	On-On	DPDT	Solder	......	3.95
35-134	6	On-On	SPDT	Solder	......	2.82
35-136	6	On-On	SPST	Solder	......	2.17
35-138	6	On-On	DPDT	Solder	......	3.98
35-178	3•	On-Off	SPST	Solder▲	......	2.38
THREE POSITION						
35-184	10	On-Off-On	SPDT	Solder▲	15/32-32	$2.95
35-188	6	On-Off-On	DPDT	Solder	15/32-32	5.22
35-066	8	On-Off-On	SPDT	Solder	......	3.75
35-068	8	On-Off-On	DPDT	Solder	......	5.28
35-189	3•	On-Off-On	DPDT	Solder▲	......	4.75

▲Combination solder and ¼″ Quick-Connect terminals. •At 250 V.

LEVER SWITCHES

Rugged, versatile, telephone type lever switches designed to serve a wide variety of functions. Contacts are copper, terminals are phosphor bronze. Insulation resistance, 100 megohms.

G.C. No.	Contacts			Terminals	Mtg. Ctrs.	Net Each
	Amps @ 48 V	Circuit	Action			
THREE POSITION						
35-728	1	On-Off-On*	DPDT	Solder	15/16″	$4.22

*Two separate sets.

KEY LOCKING SWITCHES

35-190

35-192

35-196

Designed primarily for security installations, these switches prevent unauthorized use of computers and data processing equipment, electronic instrumentation, with numerous uses around the home.

G.C. No.	Contacts			Terminals	Bushing	Net Each
	Amps @ 125 V	Circuit	Action			
35-190	6	On-Off†	SPST	Solder	15/32-32	$8.75
35-192	6	On-Off§	SPST	Solder	15/32-32	8.40
35-196	15*	On-Off§	SPST	Screw	15/32-32	4.55

*Rating at 24 VDC. †Key removable in Off position. §Key removable in either position.

REED SWITCHES

Reed switch and its magnet in molded plastic cases. Ideal for use in security systems to protect doors and windows. Contact closes as magnet nears switch, opens when magnet is drawn away.

G.C. No.	Contacts			Terminals	Mtg. Ctrs.	Net Each
	Amps @ 24 V	Circuit	Action			
35-750	0.5	N.O., On-Off	SPST	Screw	2″	$3.98

APPLIANCE SWITCHES

35-852

35-856

35-854

Switches designed for use in electrical tools and appliances of all types. Rugged, compact housings that will not chip, break or crack. Copper alloy contacts and terminal wires. Will withstand 1250 V.

G.C. No.	Description	Contact Amps @ 125 VAC	Terminals	Net Each
35-852	Push On-Push Off	3	6″ Leads	$1.98
35-854	On-Off, Toggle	6	6″ Leads	1.98
35-856	On-Off, Rotary	3	6″ Leads	1.48
35-860	Push On-Push Off	1	Solder	.85

Switches

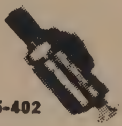
DIP SWITCHES

Dual-in-line switches for PC board mounting. **Current Rating:** 500 mA at 50 VDC; 300 mA at 24 VDC. **Initial Contact Resistance:** 50 milliohms. **Insulation Resistance:** 100 megohms, min., at 100 VDC. **Contact Material:** Copper with gold plate. **Terminal Material:** Copper with gold plate.

G.C. No.	No. of Switches	Net Each	G.C. No.	No. of Switches	Net Each
35-961	1	$1.20	35-966	6	$2.82
35-962	2	1.30	35-967	7	3.18
35-963	3	1.65	35-968	8	3.43
35-964	4	2.17	35-969	9	3.82
35-965	5	2.73	35-970	10	4.67

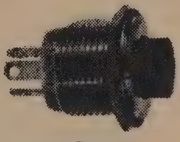
PUSHBUTTON SWITCHES

35-460


35-402

35-430

35-420


35-416

35-414

35-442

35-472

Snap-in and bushing-mounted pushbutton switches for use in a wide variety of applications in keyboards, test and communications equipment, control panels and remote control devices.

G.C. No.	Contacts			Terminals	Bushing	Net Each
	Amps @ 125 V	Circuit	Action			
35-400	0,5	Off-On†	SPST	Solder	8-40	$3.00
35-402	0.5	On-Off†	SPST	Solder	8-40	3.70
35-410	1	Off-On†	SPST	Solder	¼-32	1.10
35-414	1	On-Off†	SPDT	Solder	¼-32	1.25
35-416	1*	On-On†	SPDT	Solder	15/32-32	3.00
35-420	3§	Off-On†	SPST	Solder	½-36	1.45
35-422	3§	‡	SPST	Solder	½-36	1.90
35-430	3	Off-On†	SPST	Solder	15/32-32	3.20
35-432	3	On-Off†	SPST	Solder	15/32-32	3.20
35-442	1	On-On†	SPST	Solder	15/32-32	4.95
35-448	6	‡	SPST	Solder	15/32-32	4.48
35-454	3	‡	DPDT	Solder	15/32-32	5.47
35-460	20	Off-On†	DPST	Screw	15/32-32	9.90
35-470#	1	Off-On†	SPST	Solder	......	2.27
35-406	3	Off-On†	SPST	Solder	......	1.98
35-409	3	On-Off†	SPST	Soldre	......	1.98
35-421	3	Off-On†	SPST	Solder	......	1.58
35-474	1	Off-On†	SPST	Solder	......	3.72

*Rating at 70 VAC. §Rating at 250 VAC. †Momentary position (spring return). ‡Alternate action (push on/push off). #Illuminated.

SEE CATALOG INDEX FOR
MANY OTHER G-C ELECTRONICS
PRODUCTS LISTED

SLIDE SWITCHES

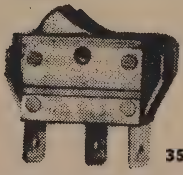
35-210

Slide switches in a variety of sizes and styles, suitable for use in equipment where space is critical, yet performance is essential. Insulation resistance. 100 megohms. Will withstand 1200 V (except illuminated models, 250 V). Contacts are silver-plated bronze (except illuminated models, copper alloy).

G.C. No.	Contacts			Terminals	Mtg. Ctrs.	Net Each
	Amps @ 125 V	Circuit	Action			
TWO POSITION						
35-202	0.5*	On-Off	SPDT	Solder	9/16″	$0.58
35-204	0.5*	On-On	DPDT	Solder	¾″	.57
35-210	4	On-Off	SPST	Solder■	1⅛″	.62
35-222	4	On-On	DPDT	Solder■	1⅛″	.72
35-242	3	On-On	DPDT	Solder	....	.63
THREE POSITION						
35-240	4	On-Off-On	DPTT	Solder■	1⅜″	$0.88
LED ILLUMINATED						
35-260	11	On-Off	SPST	Solder	1⅛″	$4.67
35-262	11	On-Off	SPST	Solder	1⅛″	4.95
35-264	11	On-Off	SPST	Solder	1⅛″	4.13
35-266	11	On-Off	SPST	Solder	1⅛″	4.55

*Rating at 50 VAC. ■Combination solder and P.C. terminals.

ROCKER SWITCHES


35-688

Snap-in and screw mounted rocker switches designed for industrial applications in control panels, entertainment systems and home appliances. Insulation resistance, 100 megohms.

G.C. No.	Contacts			Terminals	Net Each
	Amps @ 125 V	Circuit	Action		
TWO POSITION					
35-640	10	On-On	SPDT	Solder▲	$1.63
35-688#	10	On-Off	SPST	Solder▲	3.98
35-632	6	On-On	SPDT	Solder	2.58
35-634	6	On-On	SPDT	Solder	3.23
35-660#	10	On-Off	SPST	Solder▲	3.90
35-662#	10	On-Off	SPST	Solder▲	3.90
35-664#	10	On-Off	SPST	Solder▲	3.90
35-802#	10	On-Off	SPST	Solder▲	4.87
35-670	8	On-On	SPDT	Solder	2.78
35-674	8	On-On	DPDT	Solder	3.80
35-676	8	On-On	DPDT	Solder	4.95

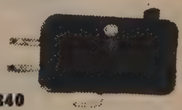
▲Combination solder and ¼″ Quick-Connect. #Illuminated.

ACCESSORIES

G.C. No.	Description	Net Each
35-060	Toggle switch boot	$1.10
35-428	Bulb, flange base, 14 V @ 80 mA	.95
35-436	Pushbutton caps, 2 ass't.	1.58
35-458	Bulb, bi-pin, 5 V @ 60 mA	2.55

SPECIALTY SWITCHES

35-844


35-840

Precision, high-speed, miniature, and subminiature snap-action switches. Long operating life and high electrical capacity make these switches ideal for use in appliances such as refrigerators or freezers. Molded plastic case affords protection and trouble-free service.

G.C. No.	Description	Contact Amps @ 125 VAC	Terminals	Net Each
35-834	On-Off, Plunger	5	Sold./QC	$3.17
35-836	On-Off, Lever	5	Sold./QC	4.47
35-838	On-Off, Roller	5	Sold./QC	5.40
35-840	On-Off, Plunger	10	Solder	2.58
35-844	On-Off, Lever	10	Solder	2.78
35-848	On-Off, Roller	10	Solder	2.98

LINEMASTER® Foot Switches

TREADLITE

3½ x 2⅝ x 1

T-51-D RU	MAINTAINED	SPDT	ALL MODELS 7A 125-250 VAC 1/6 H.P. 125 VAC EXCEPT T-51-SC T-51-SC3 7A 125 VAC 1/6 H.P. 125 VAC	Lowest cost foot switch formed steel housing. Wt. — 7 ozs. *Supplied with a 6 ft. 18/2 cord and 2 prong series plug. **Supplied with a 6 ft. 18/3 cord and 3 prong series plug. Green lead grounded. †Supplied with 6 ft. 18/3 cord without plug, green lead grounded.
T-51-S RU	MOMENTARY	SPDT		
T-51-SC* (UL)	MOMENTARY PREWIRED	SPST-N.O.		
T-51-SC3** (UL)				
T-51-SC36† (UL)				
T-51-S Twin RU	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT		
T-52-S RU	TWO STAGE MOMENTARY	BOTH SPDT		
T-54-S RU	MOMENTARY	DPDT		

GEM

3 13/16 x 1 7/32

GEM-3** (UL)	MOMENTARY PREWIRED	SPST-N.O.	7A 125 VAC 1/6 H.P. 125 VAC	Round switch operates from any position. Wt. — 1 lb. without cordset. ** † Cordset details the same as Treadlite models above.
GEM-36† (UL)			7A 125-250 VAC 1/6 H.P. 125 VAC	

HI-TREADLITE

3½ x 2½ x 1¼

HT-52-S	MOMENTARY	SPDT	20A 125-250 VAC	Formed steel housing. Wt. — 10 ozs. †Supplied with a 6 ft. 16/3 SJ cord without plug. Green lead grounded.
HT-52-SC36† (UL)	MOMENTARY PREWIRED	SPST-N.O.	10A 125-250 VAC	
HT-53-S	MOMENTARY DOUBLE BREAK	SPDT	20A 125-250 VAC	
HT-54-S	MOMENTARY	DPDT	10A 125 VAC 5A 250 VAC	
HT-52-S Twin	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT	20A 125-250 VAC	

COMPACT

2⅞ x 2½ x 1⅛

491-S RU	MOMENTARY	SPDT	10A 125-250 VAC	Completely enclosed interior switch. Formed steel housing. Wt. — 7 ozs. *With 6 ft. 16/2 cord and 2 prong series plug. **With 8 ft. 16/3 cord and 3 prong series plug. †With 6 ft. 16/3 cord green lead grounded ††With 6 ft. 18/3 cord and 3 prong series plug.
491-D	MAINTAINED	SPST	10A 125 VAC	
492-S	MOMENTARY	SPDT	20A 125-250 VAC	
491-SC* (UL)	MOMENTARY PREWIRED	SPST-N.O.	10A 125 VAC	
491-SC3** (UL)			10A 125 VAC	
491-SC36† (UL)			10A 125-250 VAC	
494-S	MOMENTARY	DPDT	10A 125 VAC 5A 250 VAC	
491-S Twin RU	TWO MOMENTARY SWITCHES	BOTH SPDT	10A 125-250 VAC	
491-DC3††	MAINTAINED	SPST	7A 125 VAC	

FULL GUARD

522-B14	Complete with hardware, instructions and pre-drilled to accept most single Clipper, Compact and Classic electric foot switches and AirVals.	Dimen. — 6″ x 6″ x 4½″ Wt. — Approx. 4 lbs.
522-B12	Complete with hardware, etc. to accept Clipper Twin Models.	Dimen. — 11″ x 6″ x 4½″ Wt. — Approx. 7 lbs. Painted alert orange.

CLIPPER

4½ x 3½ x 1½

632-S (UL) (SP)	MOMENTARY	SPDT	20A 125-250 VAC	Cast iron housing. Also available with 7″ wide treadle. Wt. — 2¼ lbs. Twin has connecting interwiring tube so that only one cable is used. Divider bar between pedals.
632-D (UL) (SP)	MAINTAINED	SPDT	1 H.P. 125-250 VAC	
633-S (UL)	MOMENTARY DOUBLE BREAK	SPDT	20A 125-250 VAC	
635-S RU	MOMENTARY	DPDT	15A 125 VAC 10A 250 VAC	
636-S RU	TWO STAGE MOMENTARY	BOTH STAGES SPDT		
634-D	MAINTAINED	DPDT	10A 125 VAC 5A 250 VAC	
632-S Twin	TWO MOMENTARY SWITCHES ON ONE BASE	BOTH SPDT	20A 125-250 VAC	

COMPACT AIR-VAL

CLIPPER AIR-VAL

CLASSIC AIR-VAL

3B-30A2-S	ALL MOMENTARY FOOT OPERATED AIR VALVE	3-way	30 cfm at 100 psi
3B-30A2-S Twin		3-way	30 cfm at 100 psi
3C-30A2-S		3-way	30 cfm at 100 psi
3C-30A2-S Twin		3-way	30 cfm at 100 psi
3L-30A2-S Wide Treadle		3-way	30 cfm at 100 psi
4C-30F2-S		4-way	30 cfm at 100 psi
3E-30A2-S		3-way	30 cfm at 100 psi
3E-10V2-S		3-way VARIABLE	10 cfm at 100 psi

JUNIOR

5½ x 3¼ x 1¼

121-S UL	MOMENTARY	SPDT	20A 125-250 VAC 1 H.P. 125-250 VAC	Cast aluminum housing. Low tapered treadle permits easy operation. Wt. — 1 lb.
124-S RU	MOMENTARY	DPDT	15A 125-250 VAC	

CLASSIC II

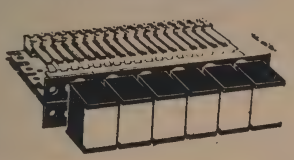
7¼ x 6¼ x 5

78 SH1 UL	MOMENTARY	FULL SHIELD	SPDT	20A 125-250 VAC	Full shield models painted Alert Orange — 2¾ lbs. No guard models painted textured black — 1½ lbs.
78 SH2	MOMENTARY	FULL SHIELD	DPDT	1 H.P. 125-250 VAC	
78 SN1	MOMENTARY	NO GUARD	SPDT	Heavy pilot duty	
78 SN2	MOMENTARY	NO GUARD	DPDT	250 VAC max.	

SWITCHCRAFT® INC. Multi-Switch® Switches

Compact, versatile, high-quality, multiple-station pushbutton switches. Standard functions are available: **Interlock**—actuating a pushbutton automatically restores to normal the pushbutton previously actuated; **Lockout**—prevents operation of more than one pushbutton at a time (this feature is included on all interlock frames); **Push-Lock/Push-Release**—pushbutton locks when depressed and is released when again depressed. Buttons are on ⅝" centers.

SERIES 35000 NON-ILLUMINATED LITTEL Multi-Switch



Switches mount on panels up to ⅛" thick. Provide 6PDT switching in 0.6 sq. in. Narrow rectangular silhouette permits stacking in parallel rows on ¾" centers. Only 2 5/16" depth behind panel. End brackets have four 6-32 tapped mounting holes. A square black pushbutton is furnished for each station. Plungers made from .050" x .187" steel will accept standard pushbuttons as well as Switchcraft push-buttons in Series 590, A-590, C-590, D-590, E-590, 600 and "Glo-Button" pushbuttons. On 2-C per station switches, each station includes two No. 83P switch stacks; on 4-C per station switches, each station includes four No. 83P switch stacks. The following part numbers cover completely assembled and factory tested switches.

No. of Stations	Interlock with Lock-Out Part No.	Push Lock/Push Release Part No.	Net Each, Lots of			
			1-9	10-24	25-49	50-99
	2-C PER STATION					
4	35041K-206	35047-206	ASK FOR PRICE AND DELIVERY			
6	35061K-206	35067-206				
8	35081K-206	35087-206				
12	35121K-206	35127-206				
	4-C PER STATION					
4	35041K-212	35047-212	ASK FOR PRICE AND DELIVERY			
6	35061K-212	35067-212				
8	35081K-212	35087-212				
12	35121K-212	35127-212				

SERIES 37000 SINGLE LAMP ILLUMINATED LITTEL Multi-Switch

Identical in switching functions and characteristics as non-illuminated Series 35000, but feature large rectangular pushbuttons which serve as a color or legend coded panel indicator light which actuates up to 6PDT switching. Switches mount in parallel rows from 1" centers and up. Depth behind panel, 2 5/16". Pushbuttons with large transparent clear display screen and white legend insert, can be hot stamped or engraved, are furnished for switching and release stations. On 2-C per station switches, each station includes two No. 83P switch stacks, one No. H-83P lighting stack and one No. H lighting spring. Lighting arrangements such as **"L"**—pushbuttons light in "IN" position; **"M"**—pushbuttons light in "OUT" position; and **"N"**—pushbuttons light in both "IN" and "OUT" positions, can be effected by wiring direct to the No. H-83 and No. H lighting stacks. A single 6 or 28 V lamp can be used at each station (lamps not furnished with switches). The following part numbers cover completely assembled and factory tested switches.

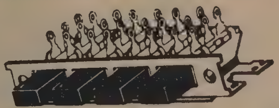
No. of Stations	Interlock with Lock-Out Part No.	Push Lock/Push Release Part No.	Net Each, Lots of			
			1-9	10-24	25-49	50-99
	2-C PER STATION					
4	37041K-1206	37047-1206	ASK FOR PRICE AND DELIVERY			
6	37061K-1206	37067-1206				
8	37081K-1206	37087-1206				
12	37121K-1206	37127-1206				

SERIES 38000 TWIN LAMP ILLUMINATED LITTEL Multi-Switch

Same compact assembly and versatility as Series 37000, except feature twin lamp illumination at each station for redundant or two color, split-face (alternate) lighting. On 2-C per station switches, each station includes three No. H-83P lighting switch stacks and one No. H lighting spring. This arrangement provides up to 3PDT circuitry. One pole is needed for lighting lamps. Accepts standard industry No. 718 lamp flange base lamp, two at each station. The following part numbers cover completely assembled and factory tested switches.

No. of Stations	Interlock with Lock-Out Part No.	Push Lock/Push Release Part No.	Net Each, Lots of			
			1-9	10-24	25-49	50-99
4	38041K-1206	38047-1206	ASK FOR PRICE AND DELIVERY			
6	38061K-1206	38067-1206				
8	38081K-1206	38087-1206				
12	33121K-1206	38127-1206				

SERIES 65000 DW Multi-Switch



All standard assemblies have 2-C and/or 4-C switch modules with solder-lug terminals. Integral black pushbutton-actuators at each station to eliminate possible pushbutton loss. Switches mount with two 6-32 screws (not furnished). Depth behind panel: 2-C assemblies, 1 1/16"; 4-C assemblies, 1 15/16". Overall switch height is 27/32". The following part numbers cover completed switch assemblies. Only the most commonly used switches are listed.

No. of Stations	Interlock with Lock-Out Part No.	Net Each, Lots of				
		1-9	10-24	25-49	50-99	100-249
	2-C PER STATION					
4	65041K-206	ASK FOR PRICE AND DELIVERY				
6	65061K-206					
8	65081K-206					
12	65121K-206					
	4-C PER STATION					
4	65041K-212	ASK FOR PRICE AND DELIVERY				
6	65061K-212					
8	65081K-212					
12	65121K-212					

No. of Stations	Push Lock/Push Release Part No.	All-Lock Part No.	Net Each, Lots of				
			1-9	10-24	25-49	50-99	100-249
	2-C PER STATION						
4	65047-206	65043-206	ASK FOR PRICE AND DELIVERY				
6	65067-206	65063-206					
8	65087-206	65083-206					
12	65127-206	65123-206					
	4-C PER STATION						
4	65047-212	65043-212	ASK FOR PRICE AND DELIVERY				
6	65067-212	65063-212					
8	65087-212	65083-212					
12	65127-212	65123-212					

SERIES 67000 DW Multi-Switch

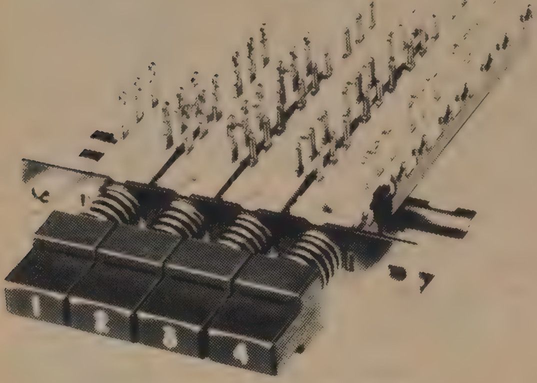
Illuminated Series 67000 switches retain all quality construction and reliable switching of Series 65000 except have large square pushbuttons providing brilliant evenly diffused lighting. Standard white pushbuttons easily snap off actuators for simple front-of panel relamping. Lamp sockets at each station accept a single 6 or 28 V lamp. Lamp socket terminals are separate from switch terminals. Mount with two 6-32 screws (not furnished); two 6-32 tapped studs (stand-offs) are integral with the frame and are used to provide proper positioning of the switch. Depth behind panel: 2-C assemblies, 1½"; 4-C assemblies, 2⅜". Overall height is 1 1/16".

No. of Stations	Interlock with Lock-Out Part No.	Net Each, Lots of				
		1-9	10-24	25-49	50-99	100-249
	2-C PER STATION					
2	67021K-506	ASK FOR PRICE AND DELIVERY				
4	67041K-506					
6	67061K-506					
8	67081K-506					
12	67121K-506					
	4-C PER STATION					
2	67021K-512	ASK FOR PRICE AND DELIVERY				
4	67041K-512					
6	67061K-512					
8	67081K-512					
12	67121K-512					

No. of Stations	Push Lock/Push Release Part No.	All-Lock Part No.	Net Each, Lots of				
			1-9	10-24	25-49	50-99	100-249
	2-C PER STATION						
2	67027-506	67023-506	ASK FOR PRICE AND DELIVERY				
4	67047-506	67043-506					
6	67067-506	67063-506					
8	67087-506	67083-506					
12	67127-506	67123-506					
	4-C PER STATION						
2	67027-512	67023-512	ASK FOR PRICE AND DELIVERY				
4	67047-512	67043-512					
6	67067-512	67063-512					
8	67087-512	67083-512					
12	67127-512	67123-512					

SWITCHCRAFT INC. Multi-Switch® Switches

TINI DW MULTI-SWITCH® SERIES 9000



Subminiature, non-illuminated, multiple-station switch on 10 and 15 mm centers. Produced with a completely proven design concept. Dependable, low-cost Series 90000 Tini Multi-Switch switches offer a full set of mechanical functions and the exclusive "snap-slide" switching technique. Applications include analog and digital computers, analyzers, transmitters and receivers, intercoms, numerical control, ground support systems, scientific instruments, home entertainment systems, appliances, and a multitude of other critical control-panel switching tasks where size, low cost and rugged reliability are prime engineering requisites. Tini-DW Multi-Switch switches offer up to 18 stations in a single row, each having up to 8-C (8PDT) switching.

FUNCTIONS AND FEATURES

- 10 and 15 mm centers.
- Interlock, all lock, non-lock, push-lock/push-release and lock-out mechanical functions.
- Large, attractive, non-illuminated pushbuttons in colors.
- Exclusive "Snap-Slide" switching with ultrareliable, bifurcated, silver-plated contacts.
- Up to 8-c switching per station.
- Full 0.5A, 125 volt AC or DC rating.
- Choice of standard solder lugs or printed circuit terminals.
- 11 amp high-current switching at any station.
- Versatile, special order options: intermixed mechanical functions, pushbutton legends, gold-plated contacts and several optional terminal styles.

TERMINALS

Both solder lugs and printed circuit (P.C.) terminals are available as standard. For easy wiring, terminals are all located on one side of the switch.

Solder Lugs: Rugged, .296" long lugs have both wrap-around notches and holes for versatile, convenient wiring.

Printed Circuit Terminals: Strong, .214" long terminals are designed for P.C. boards and multi-layers. Stand-off shoulders on each terminal assure stable mounting and adequate clearance between board and module. Dip, wave or flow soldering may be used with excellent results.

STANDARD ASSEMBLIES

Tini DW Multi-Switch switches are available in single-row assemblies with the following features:

1. **Mechanical functions:** Interlock (with or without lock-out), all-lock, non-lock and push-lock/push-release.
2. One to 18 stations (12 max., interlock with lock-out).
3. Solder lugs or printed circuit terminals.
4. **Switching:** 2-c, 4-c, 6-c or 8-c.

STATIONS AND MECHANICAL FUNCTIONS

2-C SWITCHING—SOLDER LUG TERMINALS

Number of Stations	Mechanical Functions Interlock With Lock-Out	Non-Lock Without Lock-Out	All-Lock Without Lock-Out	Push-Lock/ Push-Release Without Lock-Out
1	....	90012B06	....	90017B06
2*	90024B06	90022B06	90023B06	90027B06
3	90034B06	90032B06	90033B06	90037B06
4*	90044B06	90042B06	90043B06	90047B06
5	90054B06	90052B06	90053B06	90057B06
6*	90064B06	90062B06	90063B06	90067B06
7	90074B06	90072B06	90073B06	90077B06
8*	90084B06	90082B06	90083B06	90087B06
9	90094B06	90092B06	90093B06	90097B06
10*	90104B06	90102B06	90103B06	90107B06
11	90114B06	90112B06	90113B06	90117B06
12*	90124B06	90122B06	90123B06	90127B06
13	†	90132B06	†	90137B06
14	†	90142B06	†	90147B06
15	†	90152B06	†	90157B06
16	†	90162B06	†	90167B06
17	†	90172B06	†	90177B06
18	†	90182B06	†	90187B06

4-C SWITCHING—SOLDER LUG TERMINALS

Number of Stations	Interlock With Lock-Out	Non-Lock Without Lock-Out	All-Lock Without Lock-Out	Push-Lock/ Push-Release Without Lock-Out
1	....	90012B12	....	90017B12
2*	90024B12	90022B12	90023B12	90027B12
3	90034B12	90032B12	90033B12	90037B12
4*	90044B12	90042B12	90043B12	90047B12
5	90054B12	90052B12	90053B12	90057B12
6*	90064B12	90062B12	90063B12	90067B12
7	90074B12	90072B12	90073B12	90077B12
8*	90084B12	90082B12	90083B12	90087B12
9	90094B12	90092B12	90093B12	90097B12
10*	90104B12	90102B12	90103B12	90107B12
11	90114B12	90112B12	90113B12	90117B12
12*	90124B12	90122B12	90123B12	90127B12
13	†	90132B12	†	90137B12
14	†	90142B12	†	90147B12
15	†	90152B12	†	90157B12
16	†	90162B12	†	90167B12
17	†	90172B12	†	90177B12
18	†	90182B12	†	90187B12

2-C SWITCHING—PRINTED CIRCUIT TERMINALS

Number of Stations	Mechanical Functions Interlock With Lock-Out	Non-Lock Without Lock-Out	All-Lock Without Lock-Out	Push-Lock/ Push-Release Without Lock-Out
1	....	90012C06	....	90017C06
2*	90024C06	90022C06	90023C06	90027C06
3	90034C06	90032C06	90033C06	90037C06
4*	90044C06	90042C06	90043C06	90047C06
5	90054C06	90052C06	90053C06	90057C06
6*	90064C06	90062C06	90063C06	90067C06
7	90074C06	90072C06	90073C06	90077C06
8*	90084C06	90082C06	90083C06	90087C06
9	90094C06	90092C06	90093C06	90097C06
10*	90104C06	90102C06	90103C06	90107C06
11	90114C06	90112C06	90113C06	90117C06
12*	90124C06	90122C06	90123C06	90127C06
13	†	90132C06	†	90137C06
14	†	90142C06	†	90147C06
15	†	90152C06	†	90157C06
16	†	90162C06	†	90167C06
17	†	90172C06	†	90177C06
18	†	90182C06	†	90187C06

4-C SWITCHING—PRINTED CIRCUIT TERMINALS

Number of Stations	Interlock With Lock-Out	Non-Lock Without Lock-Out	All-Lock Without Lock-Out	Push-Lock/ Push-Release Without Lock-Out
1	....	90012C12	....	90017C12
2*	90024C12	90022C12	90023C12	90027C12
3	90034C12	90032C12	90033C12	90037C12
4*	90044C12	90042C12	90043C12	90047C12
5	90054C12	90052C12	90053C12	90057C12
6*	90064C12	90062C12	90063C12	90067C12
7	90074C12	90072C12	90073C12	90077C12
8*	90084C12	90082C12	90083C12	90087C12
9	90094C12	90092C12	90093C12	90097C12
10*	90104C12	90102C12	90103C12	90107C12
11	90114C12	90112C12	90113C12	90117C12
12*	90124C12	90122C12	90123C12	90127C12
13	†	90132C12	†	90137C12
14	†	90142C12	†	90147C12
15	†	90152C12	†	90157C12
16	†	90162C12	†	90167C12
17	†	90172C12	†	90177C12
18	†	90182C12	†	90187C12

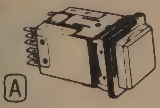
*Switch assemblies (without pushbuttons) available from stock.
†Interlock with lock-out and all-lock versions are standard with 2 thru 12 stations; interlock without lock-out available with 2 thru 18 stations on special order.

ASK FOR DETAILS OF PRICE AND DELIVERY

SWITCHCRAFT® INC. Pushbutton Switches

U.S. Pat. No.
3,681,552
Canadian
Pat. No.
and 949, 109
(June 11, 1974)
and 940,179
(Jan. 5, 1974)

SERIES PL "PUSH-LITE" SWITCHES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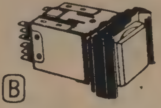
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Enclosed, lighted pushbutton switch features long-life, highly reliable, leaf-spring switching. Available in momentary or push-lock/push-release functions; single or twin lamps; with or without barriers; full or split-face display; 1C to 4C switching; black switch housing. Standard pushbutton color is white. Molded crossbar palladium contacts rated 2 amps, 200 watts max, AC, non-inductive. Mount with clamp-type bracket, no hardware needed. Can be mounted in vertical or horizontal rows and in matrices. Depth behind panel only 1¾″. Switches accept 6 or 28 V standard T-1¾ flange base lamps. Specify one lamp or two. Flange type mounting, Fig. A, requires panel cutout 1″ x .875″; barrier mounting, Fig. B, requires cutout 1³⁄₁₆″ x .875″.

Part Number	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
MOMENTARY ACTION—SINGLE LAMP						
PL-1032-05	SPDT	$11.48	$8.61	$7.89	$6.46	$5.74
PL-1062-05	DPDT	11.68	8.76	8.03	6.57	5.84
PL-1122-05	4PDT	12.64	9.48	8.69	7.11	6.32
PUSH-LOCK/PUSH-RELEASE—SINGLE LAMP						
PL-1037-05	SPDT	$12.04	$9.03	$8.28	$6.77	$6.02
PL-1067-05	DPDT	12.28	9.21	8.44	6.91	6.14
PL-1127-05	4PDT	13.28	9.96	9.13	7.47	6.64
PUSH-LOCK/PUSH-RELEASE—TWIN LAMPS						
PL-2037-05	SPDT	$13.28	$9.96	$9.13	$7.47	$6.64
PL-2067-05	DPDT	13.52	10.14	9.30	7.61	6.76

SERIES PL-9000 INDICATOR

Indicator matchs front panel appearance of "Push-Lite" switches but functions only as a lighted indicator. Mounts same as switch; depth behind panel, 1²⁵⁄₆₄″. Uses same lamps, screen, light divider and mounting barriers as switch. Housing is black, pushbutton is white. Uses one or two lamps.

Part Number	Description	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
PL-9105	Indicator	$3.04	$2.28	$2.09	$1.71	$1.52

PUSHBUTTON/INDICATOR SCREEN

For use with "Push-Lite" switches or indicators as replacement or in-the-field substitution.

PL-512	Clear screen	$0.40	$0.30	$0.275	$0.225	$0.20

LIGHT DIVIDER

For use in "Push-Lite" switches or indicators to separate the illumination from two lamps. Order a light divider for each switch or indicator where split lighting is desired.

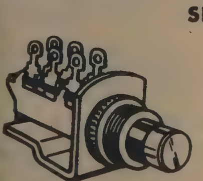
PL-551	Divider	$0.24	$0.18	$0.165	$0.135	$0.12

OPTIONAL MOUNTING BARRIERS

Black plastic barriers can be used to separate "Push-Lite" switches and/or indicators to prevent accidental operation of adjacent switches. Series PL-100 is an end barrier; one is required when switches are mounted adjacently, two are required when switches are mounted individually. Series PL-200 is a center barrier; two are required between switches when mounted adjacently. Fig. B shows "Push-Lite" switch with two end barriers installed.

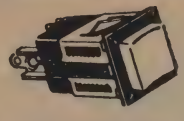
PL-102	End barrier	$0.24	$0.18	$0.165	$0.135	$0.12
PL-202	Center barrier	.24	.18	.165	.135	.12

SERIES DVR-2000

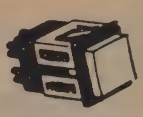


Recognition of individual switch positions occurs quickly, even from a distance, with this single station non-illuminated pushbutton switch. With plunger in the "OUT" position, a black color band contrasts with the cap color. With plunger in the "IN" position, only the cap color is visible. Silver-plated, copper alloy contacts are rated 0.5 amp DC and 3 amps AC, 125 volts, non-inductive. Threaded bushing mounts in .468″ hole in panels up to ¼″ thick. Mounting nut is supplied. Mounting centers are ¾″ min. Bushing has slot for non-turn mounting. 1-C or 2-C switches require 1⁵⁄₃₂″ behind panel; 4-C requires 2¹⁄₃₂″. Solder lug terminals. Color cap assortment kit allows change of cap color; contains cap in red, black, green, blue, white, brown and yellow.

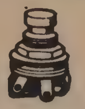
Part Number	Form	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
MOMENTARY ACTION—NON-LOCKING						
DVR-2203	1-C	$2.76	$2.07	$1.90	$1.55	$1.38
DVR-2206	2-C	2.88	2.16	1.98	1.62	1.44
PUSH-LOCK/PUSH RELEASE						
DVR-2703	1-C	$3.28	$2.46	$2.26	$1.85	$1.64
DVR-2706	2-C	3.44	2.58	2.37	1.94	1.72
COLOR CAP KIT						
K-132	Ass't kit	$1.00	$0.75	$0.688	$0.563	$0.50



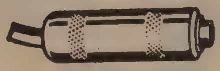
"UNISWITCH"
U.S. Pat. No. 3,446,467



"BOXSWITCH"
U.S. Pat. No. 3,446,467 and 3,419,696



"TINY SWITCH"



"CORD-SWITCH"

"BOX SWITCH" SERIES BXR

Miniature non-illuminated momentary pushbutton switches offer broad switching capabilities in minimum panel space. Switches are ¹¹⁄₁₆″ sq. and occupy only 1⁷⁄₃₂″ (less panel thickness) behind panel. Molded plastic body protects against dust and dirt and prevents bending of contacts caused by excessive handling. Attractive bezel frames the pushbutton and acts as a built-in escutcheon plate. "Adjusto-Clip" mounting provides snap-in, front of panel mounting in panels from ³⁄₆₄″ to ⁹⁄₃₂″ thick in .615″ sq. holes. **Series BXR-01,** red button; **BXR-02,** black button; **BXR-03,** green button; **BXR-05,** white button. Contacts rated 250 mA, 30 watts max. AC non-inductive. Available in solder lug/quick-connect (part numbers listed) or in PC terminals—add suffix **PC** to part number, same prices apply.

Part Number	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
BXR-__-6	DPDT	$4.64	$3.48	$3.19	$2.61	$2.32
BXR-__-3	SPDT	4.64	3.48	3.19	2.61	2.32

"BOX SWITCH" SERIES BXL

Illuminated version of the "Box" switch above uses T-1¾ bulb. Buttons are ordered separately and customer assembled. Button P-2827, red; P-2828, white; P-2829, yellow; P-2830, green; P-2831, blue; P-2832, orange.

Part No.*	Form	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
MOMENTARY ACTION						
BXL-123S	SPDT	$3.52	$2.64	$2.42	$1.98	$1.76
BXL-126S	DPST	3.80	2.85	2.61	2.14	1.90
ALTERNATE ACTION						
BXL-173S	SPDT	$3.56	$2.67	$2.45	$2.00	$1.78
BXL-176S	DPDT	3.84	2.88	2.64	2.16	1.92

*Numbers listed have solder lug/quick connect terminals; to order printed circuit terminals, change **S** to **P,** same prices apply.

"UNISWITCH" SWITCHES

Low cost, momentary action pushbutton switches only ¹¹⁄₁₆″ sq. mount from front in panel cutout .615″ sq. Contacts rated at 250 mA, 30 watts max. AC non-inductive. Series US is non-illuminated; Series LUS illuminated by one 6 V, ½ watt, T-1¾ bi-pin lamp (not supplied). Lamps replaced from front of panel. Switches incorporate an "Adjusto-Clip" which allows simple snap-in mounting in panels from ¹³⁄₁₆″ to ¹⁷⁄₆₄″ thick. Depth behind panel only 1⁵⁄₁₆″ max. Available in SPST-NO type. PC terminal type mount in single- or double-sided boards. Solder/quick connect type accept AMP Series 110 receptacles. Specify color by changing **-XX** in Part No. to **-01** for red, **-03** for green, **-04** for blue, **-05** for white or **-08** for yellow.

Part No.	Terminals	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
LUS-XX-1	Solder/screw	$2.20	$1.65	$1.51	$1.24	$1.10
US-XX-1	Solder/screw	1.80	1.35	1.24	1.01	.90
LUS-XX-1PC	P.C.	2.20	1.65	1.51	1.24	1.10
US-XX-1PC	P.C.	1.80	1.35	1.24	1.01	.90
LUS-XX-1ST	Solder/QC	2.20	1.65	1.51	1.24	1.10
US-XX-1ST	Solder/QC	1.80	1.35	1.24	1.01	.90

"TINY SWITCH"

Sub-miniature pushbutton switches for limited space applications. **Series 950,** red button; **Series 960,** black button. Integral contacts suitable for low level circuits where contact resistance is not important. Mount in ¼″ hole in panels up to ³⁄₃₂″ thick; depth behind panel ⅜″.

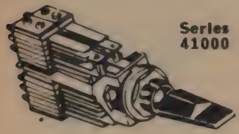
Part No.	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
951	SPST-NO	$1.72	$1.29	$1.18	$0.968	$0.86
953	SPDT	2.08	1.56	1.43	1.17	1.04
961	SPST-NO	1.72	1.29	1.18	.968	.86
962	SPST-NC	1.72	1.29	1.18	.968	.86
963	SPDT	2.08	1.56	1.43	1.17	1.04

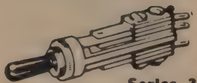
"CORD-SWITCH"

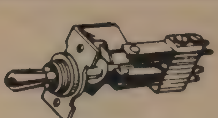
Cord-mounted switch for remote control applications. Momentary action. Rated at 250 mA, 30 watts, AC non-inductive. Bright nickel-plated brass housing, ¹¹⁄₁₆″ dia. x 2³⁄₁₆″ long.

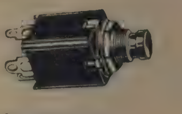
Part Number	Action	Button Color	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
E-903	SPDT	Red	$3.44	$2.58	$2.37	$1.94	$1.72
E-913	SPDT	Black	3.44	2.58	2.37	1.94	1.72

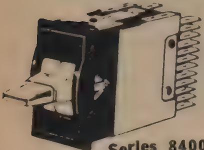
SWITCHCRAFT® INC. LEVER AND PUSHBUTTON SWITCHES

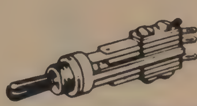

Series 41000

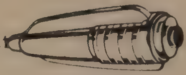

Series 3000

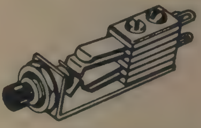

FEATHER-LEVER

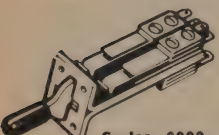

HI-D® Switch

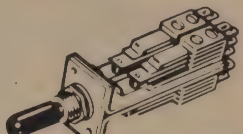

Series 84000


Series 13000


"CORDETTE" SWITCH


"TF-SWITCH"


Series 6000


Series 16000

SERIES 41000 "LT SWITCH"

U.S. Pat. No. 3,433,906 Canadian Pat. No. 850,234 (Aug. 25, 1970)

Small, high quality, telephone type lever switch. Two or three position types with positive locking and/or non-locking action. Special damping block guards against transient leaf bounce. "Can't-Cheat" detent guide prevents accidental actuator by-pass of switching positions. Welded crossbar palladium contacts rated at 2 amps, 200 watts, AC, non-inductive. Mount on 23/32″ centers in a 15/32″ dia. hole in panels up to ¼″ thick. Require only 2⅛″ depth behind panel. Bushing is slotted for non-turn mounting.

Part No.*	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
TWO POSITION TYPES						
41203	SPDT	$ 6.48	$4.86	$4.46	$3.65	$3.24
41206	DPDT	8.12	6.09	5.58	4.57	4.06
41212	4PDT	10.96	8.22	7.54	6.17	5.48
THREE POSITION TYPES						
41306	SPDT	$ 8.12	$6.09	$5.58	$4.57	$4.06
41312	DPDT	10.96	8.22	7.54	6.17	5.48
41324	4PDT	16.12	12.09	11.08	9.07	8.06

*To order locking type, add suffix **"L"** to part number; same prices apply.

SERIES 84000 "LEVER-LITE" III SWITCHES

U.S. Pat. No. 3,727,020 and 3,821,533;
Canadian Pat. No. 972,791 (Aug. 12, 1975) and
990,330 (June 1, 1976)

Illuminated lever switches available in two and three positions with locking, non-locking and talk-listen functions. Silver-plated bronze springs with welded crossbar palladium contacts rated at 2 amps, 200 watts, AC, non-inductive. Illumination is multi-color. Two position switches have amber color in neutral position and green in down position. Three position switches have red in up position, amber in neutral position and green in down position. Switch uses one standard T-1¾ flange base lamp (not supplied). Switch is mounted, relamped (without tools), terminated, and removed from front of panel. Color filters are changeable from front. Solder lug/quick-connect terminals. Mounting hole is ⅞″ x 1½″. Depth behind panel is 1 13/16″.

84206	DPDT	$10.96	$8.22	$7.54	$6.17	$5.48
84312	DPDT#	13.52	10.14	9.30	7.61	6.76

*To order locking type, add suffix **"L"** to part number; same prices apply. #Three position type, action per section.

"TELEVER" SWITCHES

Rugged telephone type lever switches available in two and three positions, locking and non-locking types. Nylon rollers on the lever actuate the special nickel silver springs, providing smooth action. Welded crossbar palladium contacts are rated 2 amps, 200 watts, AC, non-inductive. Series 6000 mounts with four 3-48 screws on 17/32″ x 13/16″ centers; Series 16000 mounts in ½″ dia. hole in panels up to ¼″ thick. Supplied with black insulated knob. Tinned solder lug terminals.

Part No.*	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
TWO POSITION TYPES						
16006	DPDT	$8.88	$6.66	$6.11	$5.00	$4.44
160012	4PDT					
THREE POSITION TYPES						
160312	DPDT	$12.00	$9.00	$8.25	$6.75	$6.00

*To order locking type, add suffix **"L"** to part number; same prices apply.

"LEV-R" SWITCHES

Small lever action switches in two and three position types, locking and non-locking action. Require half the space usually needed for a lever switch. Frame bushing and shaft are nickel plated brass. Supplied with locknut and screw-on black knob. Fine silver contacts rated 3 amps, 300 watts, AC, non-inductive. Non-locking types have spring return. Series 3000 mount in panels up to 3/32″ thick; Series 13000 mount in panels up to ¼″ thick. Both Series are ⅝″ wide, require 2¼″ behind panel, and mount in ½″ dia. hole.

Part No.*	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
TWO POSITION TYPES						
3001	SPST-NO	$4.36	$3.27	$3.00	$2.45	$2.18
3003	SPDT	4.96	3.72	3.41	2.79	2.48
3006	DPDT-NO	6.76	5.07	4.65	3.80	3.38
13001	SPST-NO	4.36	3.27	3.00	2.45	2.18
13006	DPDT	6.68	5.01	4.59	3.76	3.34
THREE POSITION TYPES						
3034	SPST	$5.28	$3.96	$3.63	$2.97	$2.64
3037	DPDT†	7.00	5.25	4.81	3.94	3.50
30312	DPDT	9.76	7.32	6.71	5.49	4.88
13036	SPDT	6.68	5.01	4.59	3.76	3.34
130312	DPDT	9.56	7.17	6.57	5.38	4.78

*To order locking type, add suffix **"L"** to part number; same prices apply. †Center off.

"FEATHER-LEVER" SWITCHES

Miniature lever switches. Lightweight and compact. Available in two and three positions, locking and non-locking types. Nylon roller on actuator gives smooth, even operation. Nickel silver springs and fine silver contacts rated 2 amps, 200 watts, AC, non-inductive. Supplied with black plastic, push-on knob. Bushing mounts in 5/16″ dia. hole in panels up to ⅛″ thick on 7/16″ centers. Requires 1 9/32″ depth behind panel. Supplied with locknut.

Part No.*	Action	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
29206	DPDT	$7.32	$5.49	$5.03	$4.12	$3.66
29306	SPDT#	7.48	5.61	5.14	4.21	3.74
29312	DPDT#	8.80	6.60	6.05	4.95	4.40

*To order locking type, add suffix **"L"** to part number; same prices apply. #Three position type, action per section.

Hi-D SWITCH PUSHBUTTON SWITCHES

Small, momentary action switches for mounting singly or in rows or arrays on ⅝″ centers. Contacts, 250 mA, 30 W, max. AC, non-inductive load. Mounts in ⅜″ dia. hole in panels up to 5/32″ thick. Mtg. hardware supplied. Series H-100 has red pushbutton; Series H-200 has black pushbutton.

H-101	SPST-NO	$1.92	$1.44	$1.32	$1.08	$0.96
H-201	SPST-NO	1.92	1.44	1.32	1.08	.96
H-203	SPDT	2.16	1.62	1.49	1.22	1.08

"TF-SWITCH" PUSHBUTTON SWITCHES

Rugged, tiny frame design is recommended for low level circuits where contact resistance is unimportant. Requires only 1 19/32″ behind panel. Action is momentary (No. 976) or push-lock/pull-release (No. 976L). Button is black; mounts in ¼″ dia. hole.

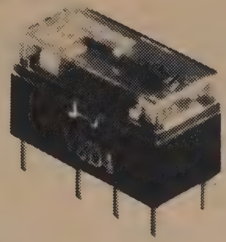
Part No.	Form	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
976	2-C	$3.36	$2.52	$2.31	$1.89	$1.68
976L	2-C	3.80	2.85	2.61	2.14	1.90

"CORDETTE" PENDANT SWITCHES

Small, lightweight pendant, momentary action (cord) switch. One-piece gray molded body contrasts with black pushbutton. Integral brass, hard gold contacts are rated 0.5 A, 50 W max. AC, non-inductive load (not recommended for high voltage circuits). Switching is SPST-NO (1-A). Supplied with 6′, 2-conductor, unshielded gray cable molded to body. Overall dim., 1 3/16″ w. x 2 15/16″ lg. (less cable).

Part No.	Net Each, Lots of				
	1-9	10-24	25-99	100-249	250-499
921K	$9.40	$7.05	$6.46	$5.29	$4.70

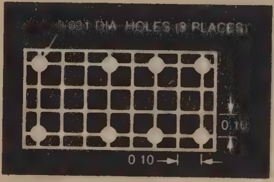
TYPE G2V DIP RELAY

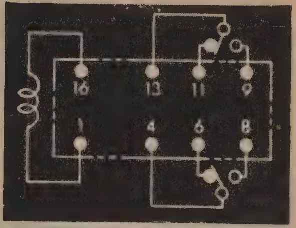


Fits 16-pin dual-inline package socket. **Pickup Voltage:** 75% of rated voltage. **Dropout Voltage:** 10% min. of rated voltage. **Contact Resistance:** 70 milliohms max., initial. **Dielectric Strength:** 1000 VAC for 1 minute. **Insulation Resistance:** 100 megohms min. at 500 VDC. **Operate Time:** 6 msec., max. **Release Time:** 3 msec., max. **Temperature Range:** −25° C to +65° C. **Mechanical Life:** 10,000,000 operations, min. **Electrical Life:** 300,000 operations min. at max. load. **Nominal Coil Power:** 560 mW. **Max. Contact Rating:** DC, 2 amps, 100 V, 30 W; AC, 1 amp, 125 V, 60 VA. **Size:** 0.827" lg. × 0.413" w. × 0.433" h.

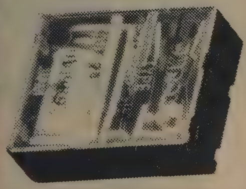
Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
STANDARD					
G2V-2-DC5	5 DC	45	$3.65	$3.29	$2.74
G2V-2-DC6	6 DC	60	3.65	3.29	2.74
G2V-2-DC12	12 DC	280	3.65	3.29	2.74
G2V-2-DC24	24 DC	1050	3.65	3.29	2.74
G2V-2-DC48	48 DC	3900	4.00	3.60	3.00
SEALED					
G2V-234P-DC5	5 DC	45	$4.12	$3.71	$3.09
G2V-234P-DC6	6 DC	60	4.12	3.71	3.09
G2V-234P-DC12	12 DC	280	4.12	3.71	3.09
G2V-234P-DC24	24 DC	1050	4.12	3.71	3.09
G2V-234P-DC48	48 DC	3900	4.47	4.02	3.35

Contact Form: DPDT.





TYPE G2L LOW PROFILE POWER RELAY

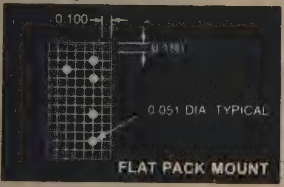


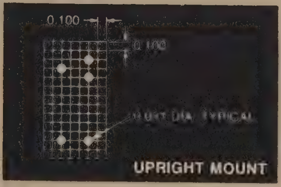
UL FILE NO. E-41515 **CSA FILE NO. LR-35535**

Pickup Voltage: 70% max. of rated voltage. **Dropout Voltage:** 10% min. of rated voltage. **Contact Resistance:** 30 milliohms max., initial. **Contact Rating:** 8 amps at 24 VDC/240 VAC. **Nominal Coil Power:** 530 mW. **Dielectric Strength:** 2500 VAC for 1 minute. **Insulation Resistance:** 100 megohms, min., at 500 VDC. **Operate Time:** 6 msec, approx. **Release Time:** 3 msec, approx. **Temperature Range:** −40° C to +70° C. **Mechanical Life:** 20,000,000 operations, min. **Electrical Life:** 100,000 operations at 8 amps at 120 VAC/24 VDC, resistive. **Size:** 1.122" w. × 1.004" d. × 0.413" h.

Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
FLAT PACK					
G2L-113P-UA-DC6	6 DC	69	$5.27	$4.74	$3.95
G2L-113P-UA-DC12	12 DC	270	5.27	4.74	3.95
G2L-113P-UA-DC24	24 DC	1110	5.27	4.74	3.95
G2L-113P-UA-DC48	48 DC	4430	5.27	4.74	3.95
UPRIGHT MOUNTING					
G2L-113P-V-UA-DC6	6 DC	69	$4.79	$4.31	$3.59
G2L-113P-V-UA-DC12	12 DC	270	4.79	4.31	3.59
G2L-113P-V-UA-DC24	24 DC	1100	4.79	4.31	3.59
G2L-113P-V-UA-DC48	48 DC	4430	4.79	4.31	3.59

Contact Form: SPDT.





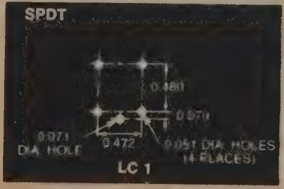
TYPE LC MINIATURE RELAY

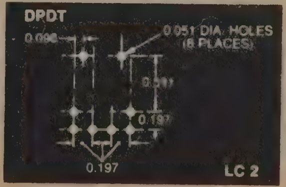
Pickup Voltage: 80% of rated voltage. **Dropout Voltage:** 10% of rated voltage. **Contact Resistance:** 100 milliohms, max., initial. **Contact Rating:** SPDT, 5 amps at 24 VDC/120 VAC; DPDT, 3 amps at 24 VDC/120 VAC. **Dielectric Strength:** 1500 VAC, 50/60 Hz, for 1 minute. **Insulation Resistance:** 100 megohms at 500 VDC. **Operate Time:** SPDT, 15 msec, max.; DPDT, 20 msec, max. **Release Time:** SPDT, 15 msec, max.; DPDT, 10 msec, max. **Temperature Range:** SPDT, −40° C to +60° C; DPDT, −40° C to +50° C. **Mechanical Life:** 5,000,000 operations, min. **Electrical Life:** 100,000 operations, min., at max. load. **Size:** SPDT, 0.661" w. × 0.886" d. × 0.906" h.; DPDT, 0.748" w. × .890" d. × 0.965" h.

UL FILE NO. E-41515

CSA FILE NO. LR-24825

Omron Number	Coil			Net Each, Lots of		
	Volts	Ohms	mW	1-9	10-99	100-499
SPDT						
LC1-CE-UA-DC6	6 DC	100	360	$2.85	$2.57	$2.14
LC1-CE-UA-DC12	12 DC	400	360	2.85	2.57	2.14
LC1-CE-UA-DC24	24 DC	1600	360	3.19	2.87	2.39
LC1-CE-JT-UA-AC24	24 AC	. . .	1 VA	3.68	3.31	2.76
LC1-CE-JT-UA-AC120	120 AC	. . .	1 VA	3.94	3.55	2.96
DPDT						
LC2-NE-UA-DC6	6 DC	40	900	$5.00	$4.50	$3.75
LC2-NE-UA-DC12	12 DC	160	900	5.00	4.50	3.75
LC2-NE-UA-DC24	24 DC	640	900	5.33	4.80	4.00





Relays

TYPE LZN LOW PROFILE MINIATURE RELAY

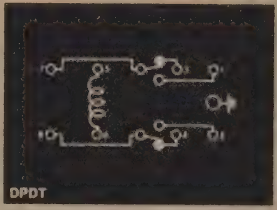
Pickup Voltage: DPDT, 70%, max., of rated voltage; 4PDT, 75%, max., of rated voltage. **Dropout Voltage:** 10%, min., of rated voltage. **Contact Resistance:** 50 milliohms, max., initial. **Contact Rating:** 3 amps at 24 VDC; 2 amps at 120 VAC. **Nominal Coil Power:** DPDT, 300 mW; 4PDT, 480 mW. **Dielectric Strength:** 1200 VAC for 1 minute. **Insulation Resistance:** 10,000 megohms at 500 VDC. **Operate Time:** 10 msec, max. **Release Time:** 5 msec, max. **Temperature Range:** –40° C to +65° C. **Mechanical Life:** 100,000,000 operations, min. **Electrical Life:** 1,000,000 operations, min., at 2 amps and 24 VDC. **Size:** DPDT, 1.201" w. × 0.807" d. × 0.453" h.; 4PDT, 1.201" w. × 0.965" d. × 0.453" h.

UL FILE NO.
E-41515

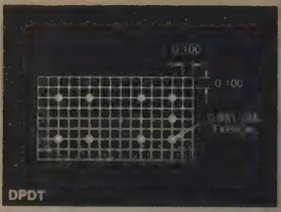
CSA FILE NO.
LR-24825

Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
		STANDARD			
LZN203-UA-DC5*	5 DC	85	$5.56	$5.00	$4.17
LZN203-UA-DC6*	6 DC	140	5.56	5.00	4.17
LZN203-UA-DC12*	12 DC	500	5.56	5.00	4.17
LZN203-UA-DC24*	24 DC	2000	5.56	5.00	4.17
LZN203-UA-DC48*	48 DC	7000	6.86	6.17	5.15
LZN403-UA-DC5†	5 DC	52	8.26	7.43	6.20
LZN403-UA-DC6†	6 DC	85	8.26	7.43	6.20
LZN403-UA-DC21†	12 DC	330	8.26	7.43	6.20
LZN403-UA-DC24†	24 DC	1200	8.26	7.43	6.20
LZN403-UA-DC48†	48 DC	4200	9.35	8.42	7.01
		SEALED			
LZNQ203-UA-DC5*	5 DC	85	$7.76	$6.98	$5.82
LZNQ203-UA-DC6*	6 DC	140	7.76	6.98	5.82
LZNQ203-UA-DC12*	12 DC	500	7.76	6.98	5.82
LZNQ203-UA-DC24*	24 DC	2000	7.76	6.98	5.82
LZNQ203-UA-DC48*	48 DC	7000	7.98	7.18	5.99
LZNQ403-UA-DC5†	5 DC	52	9.38	8.44	7.04
LZNQ403-UA-DC6†	6 DC	85	9.38	8.44	7.04
LZNQ403-UA-DC12†	12 DC	330	9.38	8.44	7.04
LZNQ403-UA-DC24†	24 DC	1200	9.38	8.44	7.04
LZNQ403-UA-DC48†	48 DC	4200	9.66	8.69	7.25

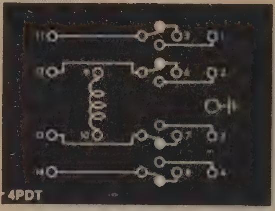
Contact Form: *DPDT; †4PDT.

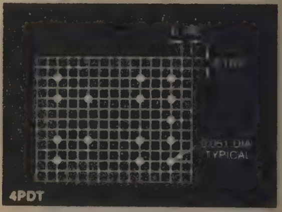


Wiring Diagram - bottom view



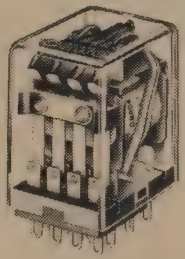
Mounting





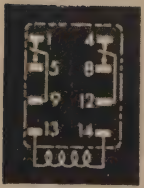
TYPE MY GENERAL PURPOSE RELAY

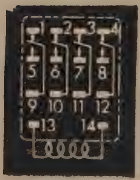
UL FILE NO.

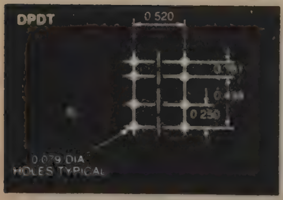


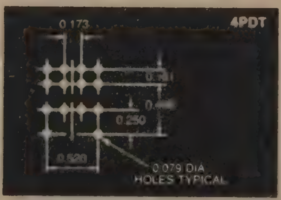
CSA FILE NO.

Pickup Voltage: 75%, max., of rated voltage. **Dropout Voltage:** AC, 30%, min., of rated voltage; DC, 10%, min., of rated voltage. **Contact Resistance:** 50 milliohms, max., initial. **Contact Rating:** DPDT, 5 amps at 24 VDC/120 VAC; 4PDT, 3 amps at 28 VDC/120 VAC. **Nominal Coil Power:** DC, 0.9 watts; AC, 1.2VA. **Dielectric Strength:** 1500 VAC for 1 minute. **Insulation Resistance:** 100 megohms, min., at 500 VDC. **Operate Time:** 20 msec, max. **Release Time:** 20 msec, max. **Temperature Range:** –40° C to +70° C. **Mechanical Life:** DC, 100,000,000 operations, min.; AC, 50,000,000 operations, min. **Electrical Life:** DPDT, 500,000 operations, min., at max. load; 4PDT, 200,000 operations, min., at max. load. **Size:** 1.071" w. × 0.815" d. × 1.358" h.









Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
		SOLDER TERMINALS			
MY2-UA-DC6*	6 DC	40	$6.25	$5.31	$4.50
MY2-UA-DC12*	12 DC	160	6.25	5.31	4.50
MY2-UA-DC24*	24 DC	650	6.25	5.31	4.50
MY2-UA-DC110*	110 DC	11,000	7.46	6.34	5.37
MY2-UA-AC12*	12 AC	...	6.98	5.93	5.03
MY2-UA-AC24*	24 AC	...	6.98	5.93	5.03
MY2-UA-AC120*	120 AC	...	7.64	6.49	5.50
MY2-UA-AC240*	240 AC	...	8.00	6.80	5.76
MY4-UA-DC6†	6 DC	40	6.99	5.94	5.03
MY4-UA-DC12†	12 DC	160	6.99	5.94	5.03
MY4-UA-DC24†	24 DC	650	6.99	5.94	5.03
MY4-UA-DC110†	110 DC	11,000	8.25	7.01	5.94
MY4-UA-AC12†	12 AC	...	7.77	6.60	5.59
MY4-UA-AC24†	24 AC	...	7.77	6.60	5.59
MY4-UA-AC120†	120 AC	...	8.42	7.16	6.06
MY4-UA-AC240†	240 AC	...	8.79	7.47	6.33
		PC TERMINALS			
MY2-0-UA-DC6*	6 DC	40	$6.25	$5.31	$4.50
MY2-0-UA-DC12*	12 DC	160	6.25	5.31	4.50
MY2-0-UA-DC24*	24 DC	650	6.25	5.31	4.50
MY2-0-UA-DC120*	110 DC	11,000	7.64	6.49	5.50
MY2-0-UA-AC12*	12 AC	...	6.98	5.93	5.03
MY2-0-UA-AC24*	24 AC	...	6.98	5.93	5.03
MY2-0-UA-AC120*	120 AC	...	7.64	6.49	5.50
MY2-0-UA-AC240*	240 AC	...	8.00	6.80	5.76
MY4-0-UA-DC6†	6 DC	40	7.02	5.97	5.05
MY4-0-UA-DC12†	12 DC	160	7.02	5.97	5.05
MY4-0-UA-DC24†	24 DC	650	7.02	5.97	5.05
MY4-0-UA-DC110†	110 DC	11,000	8.25	7.01	5.94
MY4-0-UA-AC12†	12 AC	...	7.77	6.60	5.59
MY4-0-UA-AC24†	24 AC	...	7.77	6.60	5.59
MY4-0-UA-AC120†	120 AC	...	8.42	7.16	6.06
MY4-0-UA-AC240†	240 AC	...	8.79	7.47	6.33

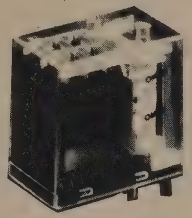
Contact Form: *DPDT; †4PDT.

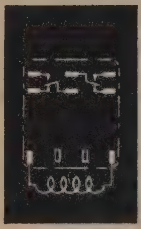
TYPE MHS SUBMINIATURE RELAY

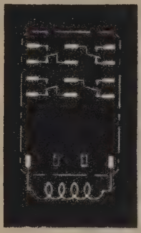
Pickup Voltage: 75%, max., of rated voltage. **Dropout Voltage:** 10%, min., of rated voltage. **Contact Resistance:** 50 milliohms, max., initial. **Contact Rating:** Bifurcated cross-bar type, 2 amps at 28 VDC/120 VAC; single-button type, 5 amps at 28 VDC/120 VAC. **Nominal Coil Power:** DPDT and 4PDT standard type, 720 mW, 6PDT standard type, 1300 mW; DPDT sensitive type, 85 mW; 4PDT sensitive type, 175 mW; 6PDT sensitive type, 250 mW. **Dielectric Strength:** 700 VAC for 1 minute. **Insulation Resistance:** 500 megohms at 500 VDC. **Operate Time:** 10 msec, max. **Release Time:** 1.5 msec, max. **Temperature Range:** −55° C to +70° C. **Mechanical Life:** 50,000,000 operations, min. **Electrical Life:** 10,000,000 operations, min., at max. load. **Size:** DPDT, 0.768″ w. × 0.945″ d. × 1.201″ h.; 4PDT, 0.768″ w. × 1.181″ d. × 1.201″ h.; 6PDT, 0.768″ w. × 1.378″ d. × 1.201″ h.

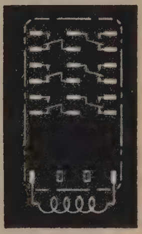
UL FILE NO. E-41515

CSA FILE NO. LR-34815









STANDARD TYPE

Omron Number	Contacts Type♦	Coil		Net Each, Lots of		
		Volts	Ohms	1-9	10-99	100-499
SOLDER TERMINALS						
MHS2ZPG-UA-DC6*	A	6 DC	52	$5.11	$4.60	$3.83
MHS2ZPG-UA-DC12*	A	12 DC	185	5.11	4.60	3.83
MHS2ZPG-UA-DC24*	A	24 DC	700	5.11	4.60	3.83
MHS2ZPG-UA-DC48*	A	48 DC	2500	5.11	4.60	3.83
MHS2ZPG-UA-DC110*	A	110 DC	15,000	8.10	7.29	6.08
MHS4ZPG-UA-DC6†	A	6 DC	52	5.58	5.02	4.19
MHS4APG-UA-DC12†	A	12 DC	185	5.58	5.02	4.19
MHS4APG-UA-DC24†	A	24 DC	700	5.58	5.02	4.19
MHS4ZPG-UA-DC48†	A	48 DC	2500	5.58	5.02	4.19
MHS4ZPG-UA-DC110†	A	110 DC	15,000	8.57	7.71	6.43
MHS6ZPG-UA-DC6▲	A	6 DC	25	7.18	6.46	5.39
MHS6APG-UA-DC12▲	A	12 DC	90	7.18	6.46	5.39
MHS6ZPG-UA-DC24▲	A	24 DC	430	7.18	6.46	5.39
MHS6ZPG-UA-DC48▲	A	48 DC	1550	7.18	6.46	5.39
MHS6ZPG-UA-DC110▲	A	110 DC	9000	8.50	7.65	6.38
MHS205PG-UA-DC6*	B	6 DC	52	5.78	5.20	4.34
MHS205PG-UA-DC12*	B	12 DC	185	5.78	5.20	4.34
MHS205PG-UA-DC24*	B	24 DC	700	5.78	5.20	4.34
MHS205PG-UA-DC48*	B	48 DC	2500	5.78	5.20	4.34
MHS205PG-UA-DC110*	B	110 DC	15,000	9.05	8.15	6.79
MHS405PG-UA-DC6†	B	6 DC	52	6.49	5.84	4.87
MHS405PG-UA-DC12†	B	12 DC	185	6.49	5.84	4.87
MHS405PG-UA-DC24†	B	24 DC	700	6.49	5.84	4.87
MHS405PG-UA-DC48†	B	48 DC	2500	6.49	5.84	4.87
MHS405PG-UA-DC110†	B	110 DC	15,000	9.74	8.77	7.31
MHS605PG-UA-DC6▲	B	6 DC	25	8.44	7.60	6.33
MHS605PG-UA-DC12▲	B	12 DC	90	8.44	7.60	6.33
MHS605PG-UA-DC24▲	B	24 DC	430	8.44	7.60	6.33
MHS605PG-UA-DC48▲	B	48 DC	1550	8.44	7.60	6.33
MHS605PG-UA-DC110▲	B	110 DC	9000	9.89	8.90	7.42
PC TERMINALS						
MHS2ZP-01-UA-DC6*	A	6 DC	52	$5.11	$4.60	$3.83
MHS2ZP-01-UA-DC12*	A	12 DC	185	5.11	4.60	3.83
MHS2ZP-01-UA-DC24*	A	24 DC	700	5.11	4.60	3.83
MHS2ZP-01-UA-DC48*	A	48 DC	2500	5.11	4.60	3.83
MHS2ZP-01-UA-DC110*	A	110 DC	15,000	8.10	7.29	6.08
MHS4ZP-01-UA-DC6†	A	6 DC	52	5.58	5.02	4.19
MHS4ZP-01-UA-DC12†	A	12 DC	185	5.58	5.02	4.19
MHS4ZP-01-UA-DC24†	A	24 DC	700	5.58	5.02	4.19
MHS4ZP-01-UA-DC48†	A	48 DC	2500	5.58	5.02	4.19
MHS4ZP-01-UA-DC110†	A	110 DC	15,000	8.57	7.71	6.43
MHS6ZP-01-UA-DC6▲	A	6 DC	25	7.18	6.46	5.39
MHS6ZP-01-UA-DC12▲	A	12 DC	90	7.18	6.46	5.39
MHS6ZP-01-UA-DC24▲	A	24 DC	430	7.18	6.46	5.39
MHS6ZP-01-UA-DC48▲	A	48 DC	1550	7.18	6.46	5.39
MHS6ZP-01-UA-DC110▲	B	110 DC	15,000	8.50	7.65	6.38
MHS205P-01-UA-DC6*	B	6 DC	52	5.78	5.20	4.34
MHS205P-01-UA-DC12*	B	12 DC	185	5.78	5.20	4.34
MHS205P-01-UA-DC24*	B	24 DC	700	5.78	5.20	4.34
MHS205P-01-UA-DC48*	B	48 DC	2500	5.78	5.20	4.34
MHS205P-01-UA-DC110*	B	110 DC	15,000	9.03	8.13	6.77
MHS405P-01-UA-DC6†	B	6 DC	52	6.49	5.84	4.87
MHS405P-01-UA-DC12†	B	12 DC	185	6.49	5.84	4.87
MHS405P-01-UA-DC24†	B	24 DC	700	6.49	5.84	4.87
MHS405P-01-UA-DC48†	B	48 DC	2500	6.49	5.84	4.87
MHS405P-01-UA-DC110†	B	110 DC	15,000	9.74	8.77	7.31
MHS605P-01-UA-DC6▲	B	6 DC	25	8.44	7.60	6.33
MHS605P-01-UA-DC12▲	B	12 DC	90	8.44	7.60	6.33
MHS605P-01-UA-DC24▲	B	24 DC	430	8.44	7.60	6.33
MHS605P-01-UA-DC48▲	B	48 DC	1550	8.44	7.60	6.33
MHS605P-01-UA-DC110▲	B	110 DC	9000	9.89	8.90	7.42

♦Type A is bifurcated cross-bar silver with gold clad; Type B is single-button type silver cadmium oxide with gold plate. Contact Forms: *DPDT; †4PDT; ▲6PDT.

SENSITIVE ADJUSTMENT

Omron Number	Contacts Type♦	Coil		Net Each, Lots of		
		mA	Ohms	1-9	10-99	100-499
SOLDER TERMINALS						
MHS2ZPG-UA-R1000*	A	8.5	1000	$6.83	$6.15	$5.12
MHS2ZPG-UA-R2500*	A	5.8	2500	6.83	6.15	5.12
MHS2ZPG-UA-R5000*	A	4.1	5000	6.83	6.15	5.12
MHS2ZPG-UA-R10000*	A	3.1	10000	6.83	6.15	5.12
MHS2ZPG-UA-R15000*	A	2.6	15000	8.10	7.29	6.08
MHS4ZPG-UA-R1000†	A	13.0	1000	7.44	6.70	5.58
MHS4ZPG-UA-R2500†	A	8.4	2500	7.44	6.70	5.58
MHS4ZPG-UA-R5000†	A	6.2	5000	7.44	6.70	5.58
MHS4ZPG-UA-R10000†	A	4.5	10000	7.44	6.70	5.58
MHS4ZPG-UA-R15000†	A	3.5	15000	8.76	7.88	6.57
MHS6ZPG-UA-R1000▲	A	16.0	1000	9.30	8.37	6.98
MHS6ZPG-UA-R2500▲	A	10.4	2500	9.30	8.37	6.98
MHS6ZPG-UA-R5000▲	A	7.2	5000	9.30	8.37	6.98
MHS6ZPG-UA-R10000▲	A	5.0	10000	9.30	8.37	6.98
MHS6ZPG-UA-R15000▲	A	4.2	15000	10.63	9.57	7.97
PC TERMINALS						
MHS2ZP-01-UA-R1000*	A	8.5	1000	$5.58	$5.02	$4.19
MHS2ZP-01-UA-R2500*	A	5.8	2500	5.58	5.02	4.19
MHS2ZP-01-UA-R5000*	A	4.1	5000	5.58	5.02	4.19
MHS2ZP-01-UA-R10000*	A	3.1	10000	5.58	5.02	4.19
MHS2ZP-01-UA-R15000*	A	2.6	15000	8.10	7.29	6.08
MHS4ZP-01-UA-R1000†	A	13.0	1000	7.44	6.70	5.58
MHS4ZP-01-UA-R2500†	A	8.4	2500	7.44	6.70	5.58
MHS4ZP-01-UA-R5000†	A	6.2	5000	7.44	6.70	5.58
MHS4ZP-01-UA-R10000†	A	4.5	10000	7.44	6.70	5.58
MHS4ZP-01-UA-R15000†	A	3.5	15000	8.76	7.88	6.57
MHS6ZP-01-UA-R1000▲	A	16.0	1000	9.30	8.37	6.98
MHS6ZP-01-UA-R2500▲	A	10.4	2500	9.30	8.37	6.98
MHS6ZP-01-UA-R5000▲	A	7.2	5000	9.30	8.37	6.98
MHS6ZP-01-UA-R10000▲	A	5.0	10000	9.30	8.37	6.98
MHS6ZP-01-UA-R15000▲	A	4.2	15000	10.63	9.57	7.97

Our Stocks are Complete and up to date.

Write for information on new or unlisted items.

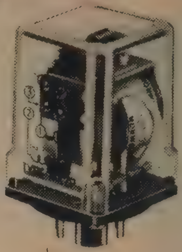
OMRON

Relays

TYPE MK PLUG-IN POWER RELAY

Octal plug-in base. **Pickup Voltage:** 75%, max., of rated voltage. **Dropout Voltage:** AC, 30%, min., of rated voltage; DC, 10%, min., of rated voltage. **Contact Resistance:** 50 milliohms, max., initial. **Contact Rating:** 10 amps at 28 VDC/120 VAC. **Nominal Coil Power:** AC, 2.1 VA; DC, 1.2 watts. **Dielectric Strength:** 1500 VAC for 1 minute. **Insulation Resistance:** 100 megohms, min., at 500 VDC. **Operate Time:** 30 msec, max. **Release Time:** 30 msec, max. **Temperature Range:** −45° C to +75° C. **Mechanical Life:** 5,000,000 operations, min. **Electrical Life:** 500,000 operations, min., at max. load. **Size:** 1.339" sq. × 2.028" h.

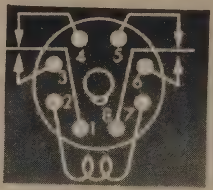
UL FILE NO. E-41515

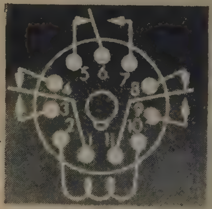


CSA FILE NO. LR-24825

Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
MK2EP-UA-DC6*	6 DC	32	$12.29	$10.45	$ 8.85
MK2EP-UA-DC12*	12 DC	120	12.29	10.45	8.85
MK2EP-UA-DC24*	24 DC	470	12.29	10.45	8.85
MK2EP-UA-DC110*	110 DC	10,000	13.54	11.51	9.75
MK2EP-UA-AC12*	12 AC	. . .	12.37	10.51	8.91
MK2EP-UA-AC24*	24 AC	. . .	12.37	10.51	8.91
MK2EP-UA-AC120*	120 AC	. . .	12.37	10.51	8.91
MK2EP-UA-AC240*	240 AC	. . .	13.09	11.13	9.42
MK3EP-UA-DC6‡	6 DC	32	14.48	12.31	10.43
MK3EP-UA-DC12‡	12 DC	120	14.48	12.31	10.43
MK3EP-UA-DC24‡	24 DC	470	14.48	12.31	10.43
MK3EP-UA-DC110‡	110 DC	10,000	15.66	13.31	11.28
MK3EP-UA-AC12‡	12 AC	. . .	14.60	12.41	10.51
MK3EP-UA-AC24‡	24 AC	. . .	14.60	12.41	10.51
MK3EP-UA-AC120‡	120 AC	. . .	14.60	12.41	10.51
MK3EP-UA-AC240‡	240 AC	. . .	15.44	13.12	11.12

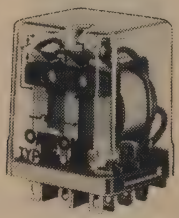
Contact Form: *DPDT; ‡3PDT.





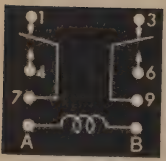
TYPE MJ PLUG-IN POWER RELAY

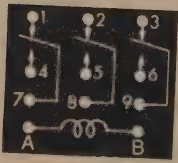
UL FILE NO. E-41515



CSA FILE NO. LR-24825

Pickup Voltage: 75%, max., of rated voltage. **Dropout Voltage:** AC, 30%, min., of rated voltage; DC, 10%, min., of rated voltage. **Contact Resistance:** 25 milliohms, max., initial. **Contact Rating:** 10 amps at 28 VDC/120 VAC. **Coil Power:** AC, 2.0 VA; DC, 1.2 watts. **Dielectric Strength:** 2000 VAC for 1 minute. **Insulation Resistance:** 100 megohms, min., at 500 VDC. **Operate Time:** AC, 15 msec, max.; DC, 30 msec, max. **Release Time:** AC, 15 msec, max.; DC, 10 msec, max. **Temperature Range:** −45° C to +75° C. **Mechanical Life:** 10,000,000 operations, min. **Electrical Life:** 500,000 operations, min., under max. load. **Size:** 1.406" w. × 1.531" d. × 1.906" h.





Omron Number	Coil		Net Each, Lots of		
	Volts	Ohms	1-9	10-99	100-499
MJ2P-UA-DC6*	6 DC	32	$7.88	$6.70	$5.67
MJ2P-UA-DC12*	12 DC	120	7.88	6.70	5.67
MJ2P-UA-DC24*	24 DC	470	7.88	6.70	5.67
MJ2P-UA-DC110*	110 DC	10,000	9.07	7.71	6.53
MJ2P-UA-AC12*	12 AC	. . .	8.71	7.40	6.27
MJ2P-UA-AC24*	24 AC	. . .	8.71	7.40	6.27
MJ2P-UA-AC120*	120 AC	. . .	8.71	7.40	6.27
MJ2P-UA-AC240*	240 AC	. . .	9.53	8.10	6.86
MJ3P-UA-DC6‡	6 DC	32	8.93	7.59	6.43
MJ3P-UA-DC12‡	12 DC	120	8.93	7.59	6.43
MJ3P-UA-DC24‡	24 DC	470	8.93	7.59	6.43
MJ3P-UA-DC110‡	110 DC	10,000	9.67	8.22	6.96
MJ3P-UA-AC12‡	12 AC	. . .	9.67	8.22	6.96
MJ3P-UA-AC24‡	24 AC	. . .	9.67	8.22	6.96
MJ3P-UA-AC120‡	120 AC	. . .	9.67	8.22	6.96
MJ3P-UA-AC240‡	240 AC	. . .	10.52	8.94	7.57

Contact Form: *DPDT; ‡3PDT.

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OFFERING COMPLETE LINE WITH UP-TO-DATE STOCK, FAST DELIVERY AND INDUSTRIAL QUANTITY CONVENIENCE. AS NEW PRODUCTS ARE DEVELOPED, WE WILL OBTAIN THEM FOR YOUR IMMEDIATE AVAILABILITY.
WRITE FOR FULL INFORMATION ON NEW OR UNLISTED ITEMS.

OMRON

Relays

TYPE LY MINIATURE POWER RELAY

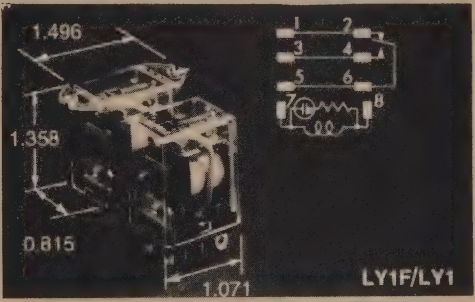
Pickup Voltage: 85%, max., of rated voltage. **Dropout Voltage:** AC, 30%, min., of rated voltage; DC, 10%, min., of rated voltage. **Contact Resistance:** 50 milliohms, max., initial. **Contact Rating:** SPDT, 15 amps at 24 VDC/230 VAC; DPDT, 13 amps at 24 VDC/230 VAC; 3PDT, and 4PDT, 10 amps at 24 VDC/230 VAC. **Dielectric Strength:** 2000 VAC for 1 minute. **Insulation Resistance:** 100 megohms at 500 VDC. **Operate Time:** 25 msec, max. **Release Time:** 25 msec, max. **Temperature Range:** −40° C to +70° C. **Mechanical Life:** AC, 50,000,000 operations, min.; DC, 100,000,000 operations, min. **Electrical Life:** 200,000 operations, min., at rated load.

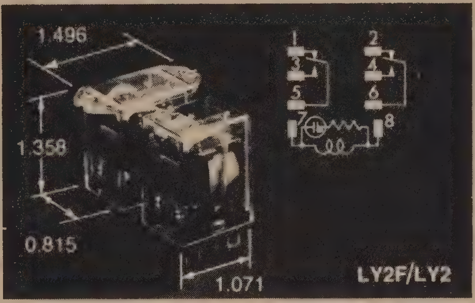
UL FILE NO. E-41515

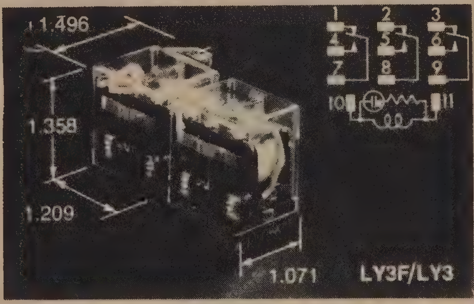
CSA FILE NO. LR-31928

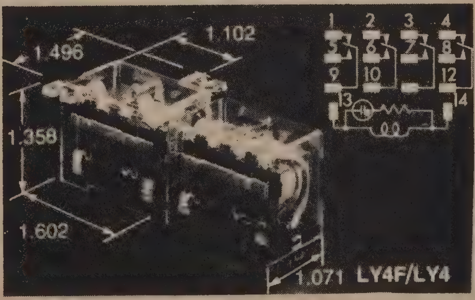
Omron Number	Coil			Net Each, Lots of		
	Volts	Ohms	Power	1-9	10-99	100-499
SOLDER/PLUG-IN						
LY1-UA-AC12§	12 AC	. . .	1.2 VA	$5.34	$4.54	$3.84
LY1-UA-AC24§	24 AC	. . .	1.2 VA	5.34	4.54	3.84
LY1-UA-AC120§	120 AC	. . .	1.2 VA	5.83	4.96	4.20
LY1-UA-AC240§	240 AC	. . .	1.2 VA	6.05	5.14	4.36
LY1-UA-DC12§	12 DC	160	0.9 W	4.84	4.11	3.48
LY1-UA-DC24§	24 DC	650	0.9 W	4.84	4.11	3.48
LY1-UA-DC110§	110 DC	11,000	0.9 W	5.50	4.68	3.96
LY2-UA-AC12*	12 AC	. . .	1.2 VA	6.78	5.76	4.88
LY2-UA-AC24*	24 AC	. . .	1.2 VA	6.78	5.76	4.88
LY2-UA-AC120*	120 AC	. . .	1.2 VA	7.30	6.21	5.26
LY2-UA-AC240*	240 AC	. . .	1.2 VA	7.49	6.37	5.40
LY2-UA-DC12*	12 DC	160	0.9 W	6.03	5.13	4.34
LY2-UA-DC24*	24 DC	650	0.9 W	6.03	5.13	4.34
LY2-UA-DC110*	110 DC	11,000	0.9 W	6.92	5.88	4.98
LY3-UA-AC12‡	12 AC	. . .	1.7 VA	8.17	6.94	5.88
LY3-UA-AC24‡	24 AC	. . .	1.7 VA	8.17	6.94	5.88
LY3-UA-AC120‡	120 AC	. . .	1.7 VA	8.83	7.51	6.36
LY3-UA-AC240‡	240 AC	. . .	1.7 VA	9.03	7.68	6.50
LY3-UA-DC12‡	12 DC	107	1.4 W	7.50	6.38	5.40
LY3-UA-DC24‡	24 DC	410	1.4 W	7.50	6.38	5.40
LY3-UA-DC110‡	110 DC	8800	1.4 W	8.43	7.17	6.07
LY4-UA-AC12†	12 AC	. . .	2.0 VA	9.71	8.25	6.99
LY4-UA-AC24†	24 AC	. . .	2.0 VA	9.71	8.25	6.99
LY4-UA-AC120†	120 AC	. . .	2.0 VA	10.81	9.19	7.78
LY4-UA-AC240†	240 AC	. . .	2.0 VA	11.42	9.71	8.22
LY4-UA-DC12†	12 DC	100	1.5 W	9.01	7.66	6.49
LY4-UA-DC24†	24 DC	350	1.5 W	9.01	7.66	6.49
LY4-UA-DC110†	110 DC	7300	1.5 W	9.77	8.30	7.03
PC MOUNTING						
LY1-0-UA-AC12§	12 AC	. . .	1.2 VA	$5.34	$4.54	$3.85
LY1-0-UA-AC24§	24 AC	. . .	1.2 VA	5.34	4.54	3.85
LY1-0-UA-AC120§	120 AC	. . .	1.2 VA	5.83	4.96	4.20
LY1-0-UA-AC240§	240 AC	. . .	1.2 VA	6.05	5.14	4.36
LY1-0-UA-DC12§	12 DC	160	0.9 W	4.84	4.11	3.49
LY1-0-UA-DC24§	24 DC	650	0.9 W	4.84	4.11	3.49
LY1-0-UA-DC110§	110 DC	11,000	0.9 W	5.50	4.68	3.96
LY2-0-UA-AC12*	12 AC	. . .	1.2 VA	6.67	5.67	4.80
LY2-0-UA-AC24*	24 AC	. . .	1.2 VA	6.67	5.67	4.80
LY2-0-UA-AC120*	120 AC	. . .	1.2 VA	7.30	6.21	5.26
LY2-0-UA-AC240*	240 AC	. . .	1.2 VA	7.49	6.37	5.39
LY2-0-UA-DC12*	12 DC	160	0.9 W	6.03	5.13	4.34
LY2-0-UA-DC24*	24 DC	650	0.9 W	6.03	5.13	4.34
LY2-0-UA-DC110*	110 DC	11,000	0.9 W	6.92	5.88	4.98
LY3-0-UA-AC12‡	12 AC	. . .	1.7 VA	8.17	6.95	5.88
LY3-0-UA-AC24‡	24 VA	. . .	1.7 VA	8.17	6.95	5.88
LY3-0-UA-AC120‡	120 AC	. . .	1.7 VA	8.83	7.51	6.36
LY3-0-UA-AC240‡	240 AC	. . .	1.7 VA	9.03	7.68	6.50
LY3-0-UA-DC12‡	12 DC	107	1.4 W	7.50	6.38	5.40
LY3-0-UA-DC24‡	24 DC	410	1.4 W	7.50	6.38	5.40
LY3-0-UA-DC110‡	110 DC	8800	1.4 W	8.43	7.17	6.07
LY4-0-UA-AC12†	12 AC	. . .	2.0 VA	9.71	8.25	6.99
LY4-0-UA-AC24†	24 AC	. . .	2.0 VA	9.71	8.25	6.99
LY4-0-UA-AC120†	120 AC	. . .	2.0 VA	10.81	9.19	7.78
LY4-0-UA-AC240†	240 AC	. . .	2.0 VA	11.42	9.71	8.22
LY4-0-UA-DC12†	12 DC	100	1.5 W	9.01	7.66	6.49
LY4-0-UA-DC24†	24 DC	350	1.5 W	9.01	7.66	6.49
LY4-0-UA-DC110†	110 DC	7300	1.5 W	9.77	8.30	7.03
BRACKET MOUNTING						
LY1F-UA-AC12§	12 AC	. . .	1.2 VA	$5.64	$4.79	$4.06
LY1F-UA-AC24§	24 AC	. . .	1.2 VA	5.64	4.79	4.06
LY1F-UA-AC120§	120 AC	. . .	1.2 VA	6.15	5.23	4.43
LY1F-UA-AC240§	240 AC	. . .	1.2 VA	6.35	5.40	4.57
LY1F-UA-DC12§	12 DC	160	0.9 W	5.27	4.48	3.79
LY1F-UA-DC24§	24 DC	650	0.9 W	5.27	4.48	3.79
LY1F-UA-DC110§	110 DC	11,000	0.9 W	5.84	4.96	4.20
LY2F-UA-AC12*	12 AC	. . .	1.2 VA	7.81	6.64	5.62
LY2F-UA-AC24*	24 AC	. . .	1.2 VA	7.81	6.64	5.62
LY2F-UA-AC120*	120 AC	. . .	1.2 VA	7.62	6.48	5.49
LY2F-UA-AC240*	240 AC	. . .	1.2 VA	7.81	6.64	5.62
LY2F-UA-DC12*	12 DC	160	0.9 W	6.36	5.41	4.58
LY2F-UA-DC24*	24 DC	650	0.9 W	6.36	5.41	4.58
LY2F-UA-DC110*	110 DC	11,000	0.9 W	7.24	6.15	5.21
LY3F-UA-AC12‡	12 AC	. . .	1.7 VA	8.50	7.23	6.12
LY3F-UA-AC24‡	24 AC	. . .	1.7 VA	8.50	7.23	6.12
LY3F-UA-AC120‡	120 AC	. . .	1.7 VA	9.17	7.79	6.60
LY3F-UA-AC240‡	240 AC	. . .	1.7 VA	9.36	7.96	6.74
LY3F-UA-DC12‡	12 DC	107	1.4 W	7.83	6.66	5.64
LY3F-UA-DC24‡	24 DC	410	1.4 W	7.83	6.66	5.64
LY3F-UA-DC110‡	110 DC	8800	1.4 W	8.76	7.45	6.31
LY4F-UA-AC12†	12 AC	. . .	2.0 VA	10.04	8.53	7.23
BRACKET MOUNTING (CONTINUED)						
LY4F-UA-AC24†	24 AC	. . .	2.0 VA	10.04	8.53	7.23
LY4F-UA-AC120†	120 AC	. . .	2.0 VA	11.15	9.48	8.03
LY4F-UA-AC240†	240 AC	. . .	2.0 VA	11.78	10.01	8.48
LY4F-UA-DC12†	12 DC	100	1.5 W	9.35	7.95	6.73
LY4F-UA-DC24†	24 DC	350	1.5 W	9.35	7.95	6.73
LY4F-UA-DC110†	110 DC	7300	1.5 W	10.12	8.60	7.29

Contact Form: *DPDT; †4PDT; ‡3PDT; §SPDT.



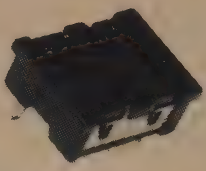






Relay Accessories

PM08-0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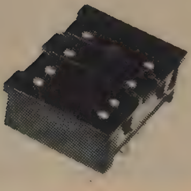
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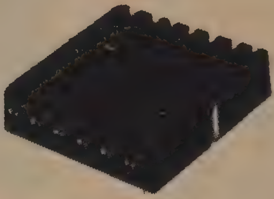
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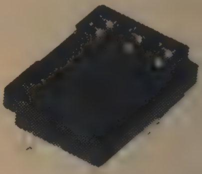
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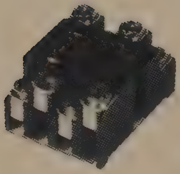
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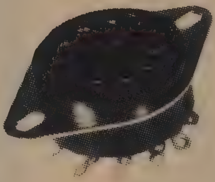
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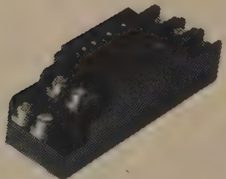
PL08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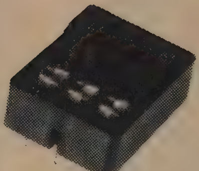
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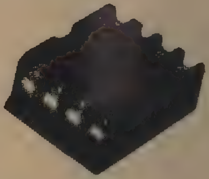
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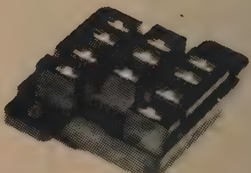

PJ11

SOCKETS

Omron Number	Fits Relay Series	Mounting	No. of Poles	Terminals	Net Each
PT08	LY	Chassis	1, 2	Solder	$1.20
PT11		Chassis	3	Solder	1.25
PT14		Chassis	4	Solder	1.33
PT08-0		Chassis	1, 2	PC	1.20
PT11-0		Chassis	3	PC	1.25
PT14-0		Chassis	4	PC	1.33
PTF08(-N)*		Surface	1, 2	Screw	2.96
PTF11(-N)*		Surface	3	Screw	4.41
PTF14(-N)*		Surface	4	Screw	5.45
PM08	MHS	Chassis	2	Solder	.73
PM08-0		Chassis	2	PC	.73
PM08-0-SM		Chassis	2	PC	.80
PM14		Chassis	4	Solder	.94
PM14-0		Chassis	4	PC	.94
PM14-0-SM		Chassis	4	PC	1.01
PM20		Chassis	6	Solder	1.20
PM20-0		Chassis	6	PC	1.20
PM20-0-SM		Chassis	6	PC	1.31
PJ11	MJ	Chassis	1, 2, 3	Solder	1.07
PJ11-0		Chassis	1, 2, 3	PC	1.20
PJF11(-N)*		Surface	1, 2, 3	Screw	4.66
PL08	MK	Chassis	1, 2	Solder	.39
PL11		Chassis	3	Solder	.73
PF083(-N)*		Surface	1, 2	Screw	2.90
PF113(-N)*		Surface	3	Screw	4.53
PY08	MY	Chassis	1, 2	Solder	.80
PY14		Chassis	4	Solder	.97
PYF08(-N)*		Surface	1, 2	Screw	3.03
PYF14(-N)*		Surface	4	Screw	6.97

*(-N) types may be used for surface mounting or track mounting.

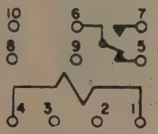
HOLD-DOWN CLIPS

Omron Number	Fits Relay Series	No. of Contacts	Net Each
PYC-P	LY	1, 2, 3, 4 poles	$0.15
PMC2S	MHS	2 pole	.10
PMC4S	MHS	4 pole	.10
PMC6S	MHS	6 pole	.10
PJC	MJ	1, 2, 3 pole	.24
PLC	MK	1, 2, 3 poles (Chassis socket)	.24
PFC	MK	1, 2, 3 poles (Surface socket)	.15
PYC-P	MY	1, 2, 3, 4 poles	.15

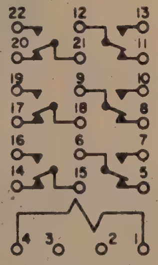
GENERAL PURPOSE RELAYS

R10-E1

R10 Series: All models are UL recognized and models up to 6PDT have CSA recognition. Contact ratings shown are for 28 VDC or 115 VAC, resistive; maximum current is shown in parentheses. **E1** relays have solder/plug-in terminals and 3-48 stud; **E2** relays have PC board terminals; **E6** relays have solder/plug-in terminals and mounting bracket with 6-32 stud and locating tab on .437" ctrs. **J** relays are DC current actuated; **SS** relays are sensitive DC voltage actuated; **V** relays are DC voltage actuated. All have clear polycarbonate cover. **Size:** .735" × 1.187" × .95" to 1.580" depending on contact arrangement. **Weight:** 0.8 to 1.4 ozs.



1 POLE



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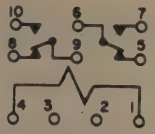

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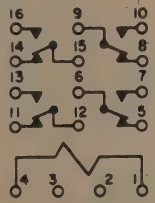
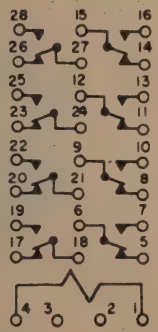


4 POLE



8 POLE

P & B Number	Coil Input	Contacts		Net Each, Lots of*		
		Arrangement	Amps, Typ. (Max.)	1-9	10-49	50-99
R10-E1-L2-V185	12 VDC	DPDT	0.0005(0.25)	$ 8.95	$ 8.06	$ 7.16
R10-E1-L2-V700	24 VDC	DPDT	0.0005(0.25)	8.95	8.06	7.16
R10-E1-L2-115V	115 VAC	DPDT	0.0005(0.25)	15.00	13.50	12.00
R10-E1-L4-V185	12 VDC	4PDT	0.0005(0.25)	13.05	11.75	10.44
R10-E1-L4-V700	24 VDC	4PDT	0.0005(0.25)	13.05	11.75	10.44
R10-E1-L4-115V	115 VAC	4PDT	0.0005(0.25)	19.70	17.73	15.76
R10-E1-L6-V430	24 VDC	6PDT	0.0005(0.25)	19.50	17.55	15.60
R10-E1-W4-V185	12 VDC	4PDT	7.5(7.5)	9.95	8.96	7.96
R10-E1-W4-V700	24 VDC	4PDT	7.5(7.5)	9.95	8.96	7.96
R10-E1-W4-115	115 VAC	4PDT	7.5(7.5)	16.60	14.94	13.28
R10-E1-Y1-SS1.0K	6 VDC	SPDT	2(3)	9.45	8.51	7.56
R10-E1-Y1-SS220	3 VDC	SPDT	2(3)	9.45	8.51	7.56
R10-E1-Y2-V28	5 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E1-Y2-V52	6 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E1-Y2-V185	12 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E1-Y2-V700	24 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E1-Y2-V2.5K	48 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E1-Y2-V15.0K	115 VDC	DPDT	2(3)	9.05	8.15	7.24
R10-E1-Y2-S200	3 VDC	DPDT	2(3)	8.30	7.47	6.64
R10-E1-Y2-S800	12 VDC	DPDT	2(3)	8.30	7.47	6.64
R10-E1-Y2-115V	115 VAC	DPDT	2(3)	12.00	10.80	9.60
R10-E1-Y4-V52	6 VDC	4PDT	2(3)	7.05	6.35	5.64
R10-E1-Y4-V185	12 VDC	4PDT	2(3)	7.05	6.35	5.64
R10-E1-Y4-V700	24 VDC	4PDT	2(3)	7.05	6.35	5.64
R10-E1-Y4-J1.0K	8.5 mA	4PDT	2(3)	8.45	7.61	6.76
R10-E1-Y4-V2.5K	48 VDC	4PDT	2(3)	7.05	6.35	5.64
R10-E1-Y4-V15.0K	115 VDC	4PDT	2(3)	10.15	9.14	8.12
R10-E1-Y6-V25	6 VDC	6PDT	2(3)	10.50	9.45	8.40
R10-E1-Y6-V90	12 VDC	6PDT	2(3)	10.50	9.45	8.40
R10-E1-Y6-V430	24 VDC	6PDT	2(3)	10.50	9.45	8.40
R10-E1-Y6-V1.5K	48 VDC	6PDT	2(3)	10.50	9.45	8.40
R10-E1-Y6-9.0K	115 VDC	6PDT	2(3)	12.35	11.12	9.88
R10-E1-M2-V700	24 VDC	DPDT	5(7.5)	7.35	6.62	5.88
R10-E1-M4-V700	24 VDC	4PDT	5(7.5)	9.85	8.87	7.88
R10-E1-X2-V28	5 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E1-X2-V52	6 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E1-X2-V185	12 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E1-X2-V700	24 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E1-X2-V2.5K	48 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E1-X2-V15.0K	115 VDC	DPDT	5(7.5)	9.55	8.60	7.64
R10-E1-X2-S800	12 VDC	DPDT	5(7.5)	8.80	7.92	7.04
R10-E1-X4-V52	6 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E1-X4-V185	12 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E1-X4-V700	24 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E1-X4-24V	24 VAC	4PDT	5(7.5)	12.55	11.30	10.04
R10-E1-X4-V2.5K	48 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E1-X4-V15.0K	115 VDC	4PDT	5(7.5)	11.15	10.04	8.92
R10-E1-X6-V25	6 VDC	6PDT	5(7.5)	12.00	10.80	9.60
R10-E1-X6-V90	12 VDC	6PDT	5(7.5)	12.00	10.80	9.60
R10-E1-X6-V430	24 VDC	6PDT	5(7.5)	12.00	10.80	9.60
R10-E1-X6-V1.5K	48 VDC	6PDT	5(7.5)	12.00	10.80	9.60
R10-E1-X6-V9.0K	115 VDC	6PDT	5(7.5)	13.85	12.47	11.08
R10-E1-W2-V185	12 VDC	DPDT	7.5(7.5)	7.40	6.66	5.92
R10-E1-W2-V700	24 VDC	DPDT	7.5(7.5)	7.40	6.66	5.92
R10-E1-Z2-V52	6 VDC	DPDT	0.1(2)	6.65	5.99	5.32
R10-E1-Z2-V185	12 VDC	DPDT	0.1(2)	6.65	5.99	5.32
R10-E1-Z2-V700	24 VDC	DPDT	0.1(2)	6.65	5.99	5.32
R10-E1-Z2-V2.5K	48 VDC	DPDT	0.1(2)	6.65	5.99	5.32
R10-E1-Z2-V15.0K	115 VDC	DPDT	0.1(2)	9.75	8.78	7.80
R10-E1-Z2-S800	12 VDC	DPDT	0.1(2)	9.00	8.10	7.20
R10-E1-Z2-115V	115 VAC	DPDT	0.1(2)	12.70	11.43	10.16
R10-E1-Z4-V52	6 VDC	4PDT	0.1(2)	8.45	7.61	6.76
R10-E1-Z4-V185	12 VDC	4PDT	0.1(2)	8.45	7.61	6.76
R10-E1-Z4-V700	24 VDC	4PDT	0.1(2)	8.45	7.61	6.76
R10-E1-Z4-V2.5K	48 VDC	4PDT	0.1(2)	8.45	7.61	6.76
R10-E1-Z4-V15.0K	115 VDC	4PDT	0.1(2)	11.55	10.40	9.24
R10-E1-Z4-115V	115 VAC	4PDT	0.1(2)	15.10	13.59	12.08
R10-E1-Z6-V25	6 VDC	6PDT	0.1(2)	12.60	11.34	10.08
R10-E1-Z6-V90	12 VDC	6PDT	0.1(2)	12.60	11.34	10.08
R10-E1-Z6-V430	24 VDC	6PDT	0.1(2)	12.60	11.34	10.08
R10-E1-Z6-V1.5K	48 VDC	6PDT	0.1(2)	12.60	11.34	10.08
R10-E1-Z6-V9.0K	115 VDC	6PDT	0.1(2)	14.45	13.01	11.56
R10-E1-Z8-V350	18 VDC	8PDT	0.1(2)	17.15	15.44	13.72
R10-E1-Y2-J1.0K	8.5 mA	DPDT	2(3)	8.30	7.47	6.64
R10-E1-Y2-J2.5K	5.8 mA	DPDT	2(3)	8.30	7.47	6.64
R10-E1-Y2-J5.0K	4.1 mA	DPDT	2(3)	8.95	8.06	7.16
R10-E1-Y2-J10.0K	3.1 mA	DPDT	2(3)	9.55	8.60	7.64
R10-E1-Y4-J2.5K	8.4 mA	4PDT	2(3)	9.40	8.46	7.52
R10-E1-Y4-J5.0K	6.2 mA	4PDT	2(3)	10.05	9.05	8.04
R10-E1-Y4-J10.0K	4.5 mA	4PDT	2(3)	10.65	9.59	8.52
R10-E1-Y4-115V	115 VAC	4PDT	2(3)	13.70	12.33	10.96
R10-E1-Z4-J1.0K	13.0 mA	4PDT	0.1(2)	10.80	9.72	8.64
R10-E1-Z4-J2.5K	8.4 mA	4PDT	0.1(2)	10.80	9.72	8.64
R10-E1-Z4-J5.0K	6.2 mA	4PDT	0.1(2)	11.45	10.31	9.16
R10-E1-X2-115V	115 VAC	DPDT	5(7.5)	12.50	11.25	10.00
R10-E1-X4-115V	115 VAC	4PDT	5(7.5)	14.70	13.23	11.76
R10-E1-X6-115V	115 VAC	6PDT	5(7.5)	20.25	18.23	16.20
R10-E1-X8-115V	115 VAC	8PDT	5(7.5)	23.55	21.20	18.84
R10-E2-W2-V185	12 VDC	DPDT	7.5(7.5)	7.40	6.66	5.92
R10-E2-W2-V700	24 VDC	DPDT	7.5(7.5)	7.40	6.66	5.92
R10-E2-X2-V28	5 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E2-X2-V185	12 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E2-X2-V700	24 VDC	DPDT	5(7.5)	6.45	5.81	5.16
R10-E2-X2-S3.2K	24 VDC	DPDT	5(7.5)	8.80	7.92	7.04
R10-E2-X2-115V	115 VAC	DPDT	5(7.5)	12.50	11.25	10.00
R10-E2-X4-V185	12 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E2-X4-V700	24 VDC	4PDT	5(7.5)	8.05	7.25	6.44
R10-E2-Y2-V28	5 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E2-Y2-V185	12 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E2-Y2-V700	24 VDC	DPDT	2(3)	5.95	5.36	4.76
R10-E2-Y2-J2.5K	48 VDC	DPDT	2(3)	8.30	7.47	6.64
R10-E2-Y2-115V	115 VAC	DPDT	2(3)	12.00	10.80	9.60
R10-E2-Y4-V185	12 VDC	4PDT	2(3)	7.05	6.35	5.64
R10-E2-Y4-V700	24 VDC	4PDT	2(3)	7.05	6.35	5.64

*LARGER QUANTITY PRICES ON REQUEST. PRICES SHOWN ARE FOR REFERENCE ONLY
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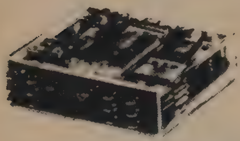
GENERAL PURPOSE RELAYS

R40-E3

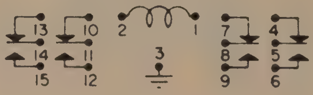


R40-E1

R40 Series: Slimline relays designed for flat PC board mounting have UL and CSA recognition. Available with solder/plug-in, PC board, or right-angle PC board terminals. A variety of contact styles provide switching from dry circuit to 7.5 amps at 28 VDC or 115 VAC, resistive. Bifurcated contacts for low level applications or cross bar contacts for dry circuit use are available. Clear polycarbonate cover. **E1** relays have solder/plug-in terminals; **E2** relays have PC board terminals; **E3** relays have right-angle PC board terminals. **Size:** 1.4" × 1.2" × .430". **Weight:** 0.8 to 1.05 ozs.

P & B Number	Coil Input	Contacts		Net Each, Lots of ★		
		Arrangement	Amps,* Typ. (Max.)	1-9	10-49	50-99
R40-E1-X2-V320	12 VDC	DPDT	5(7.5)	$10.50	$ 9.45	$ 8.40
R40-E1-X4-V200	12 VDC	4PDT	5(7.5)	13.50	12.15	10.80
R40-E1-X4-V800	24 VDC	4PDT	5(7.5)	13.50	12.15	10.80
R40-E1-Y2-V1.2K	24 VDC	DPDT	2(3)	10.00	9.00	8.00
R40-E1-Y4-V50	6 VDC	4PDT	2(3)	12.50	11.25	10.00
R40-E1-Y4-V200	12 VDC	4PDT	2(3)	12.50	11.25	10.00
R40-E1-Y4-V800	24 VDC	4PDT	2(3)	12.50	11.25	10.00
R40-E1-Y4-V3.2K	48 VDC	4PDT	2(3)	12.50	11.25	10.00
R40-E1-Z4-V200	12 VDC	4PDT	0.1(2)	13.90	12.51	11.12
R40-E1-Z4-V800	24 VDC	4PDT	0.1(2)	13.90	12.51	11.12
R40-E1-L4-V200	12 VDC	4PDT	0.0005(.25)	15.30	13.77	12.24
R40-E1-L4-V800	24 VDC	4PDT	0.0005(.25)	15.30	13.77	12.24
R40-E2-X4-V50	6 VDC	4PDT	5(7.5)	13.50	12.15	10.80
R40-E2-X4-V200	12 VDC	4PDT	5(7.5)	13.50	12.15	10.80
R40-E2-X4-V800	24 VDC	4PDT	5(7.5)	13.50	12.15	10.80
R40-E3-W2-V800	24 VDC	DPDT	7.5(7.5)	12.25	11.03	9.80
R40-E3-X4-V200	12 VDC	4PDT	5(7.5)	14.10	12.69	11.28
R40-E3-X4-V800	24 VDC	4PDT	5(7.5)	14.10	12.69	11.26
R40-E3-Y4-V200	12 VDC	4PDT	2(3)	13.10	11.79	10.48
R40-E3-Y4-V800	24 VDC	4PDT	2(3)	13.10	11.79	10.48
R40-E3-Y4-V3.2K	48 VDC	4PDT	2(3)	13.10	11.79	10.48
R40-E3-Z4-V200	12 VDC	4PDT	0.1(2)	14.50	13.05	11.60
R40-E3-Z4-V800	24 VDC	4PDT	0.1(2)	14.50	13.05	11.60
R40-E3-L4-V200	12 VDC	4PDT	0.0005(.25)	15.90	14.31	12.72
R40-E3-L4-V800	24 VDC	4PDT	0.0005(.25)	15.90	14.31	12.72

*For 28 VDC or 115 VAC, resistive.



R40

GENERAL PURPOSE RELAYS

K10

K10 Series: Relays offer reliable DPDT, 10 amp switching capability in a compact package. Recognized under the component program of UL and CSA certified. Enclosed in smoke colored polycarbonate covers with .187" quick-connect terminals which also fit available sockets. The silver cadmium oxide are rated 10 amps at 30 VDC, resistive, or 277 VAC; ½ H.P. at 250 VAC; H.P. at 120 VAC.

P & B Number■	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps, Max.	1-24	25-50	51-99
K10P11A15	6, 12, 24, 48, 120 VAC	DPDT	10	$7.45	$7.08	$6.71
K10P11D15	6, 12, 24 VDC	DPDT	10	6.65	6.32	5.99
K10P11D15	90 VDC	DPDT	10	7.45	7.08	6.71
K10P11D15	110 VDC	DPDT	10	7.80	7.41	7.02

■Specify coil voltage when ordering.

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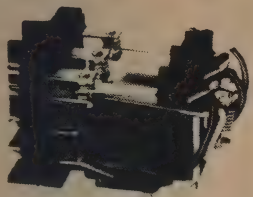
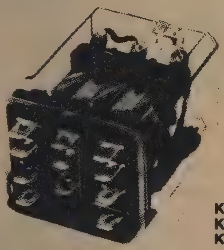
GENERAL PURPOSE RELAYS



KU Series: UL recognized and CSA listed. Open relays mount with one No. 6-32 threaded stud and a .218" locating tab on .437" centers. All models have .187" quick-connect/solder terminals. **Contact Ratings:** 5 amps at 28 VDC and 240 VAC, 80% PF, 1/10 hp at 120 VAC; ¼ hp at 240 VAC.

P & B Number	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps, Typ. (max.)	1-24	25-50	51-99
KU5A11	6, 12, 24, 120 VAC	SPDT	5	$ 6.40	$ 6.08	$ 5.76
KU5A11	240 VAC	SPDT	5	8.10	7.70	7.29
KU5D11	6, 12, 24 VDC	SPDT	5	6.10	5.80	5.49
KU5D11	110 VDC	SPDT	5	8.85	8.41	7.97
KU5A15	6, 12, 24, 120 VAC	SPDT	10	6.45	6.13	5.81
KU5A15	240 VAC	SPDT	10	8.15	7.74	7.34
KU5D15	6, 12, 24 VDC	SPDT	10	6.15	5.84	5.54
KU5D15	110 VDC	SPDT	10	8.90	8.46	8.01
KU11A11	6, 12, 24, 120 VAC	DPDT	5	7.30	6.94	6.57
KU11A11	240 VAC	DPDT	5	9.00	8.55	8.10
KU11D11	6, 12, 24 VDC	DPDT	5	7.00	6.65	6.30
KU11D11	110 VDC	DPDT	5	9.75	9.26	8.78
KU11A15	6, 12, 24, 120 VAC	DPDT	10	7.40	7.03	6.66
KU11A15	240 VAC	DPDT	10	9.10	8.65	8.19
KU11D15	6, 12, 24 VDC	DPDT	10	7.10	6.75	6.39
KU11D15	110 VDC	DPDT	10	9.85	9.36	8.87
KU14A11	6, 12, 24, 120 VAC	3PDT	5	8.55	8.12	7.70
KU14A11	240 VAC	3PDT	5	10.25	9.74	9.23
KU14D11	6, 12, 24 VDC	3PDT	5	8.25	7.84	7.43
KU14D11	110 VDC	3PDT	5	11.00	10.45	9.90
KU14A15	6, 12, 24, 120 VAC	3PDT	10	8.70	8.27	7.83
KU14A15	240 VAC	3PDT	10	10.40	9.88	9.36
KU14D15	6, 12, 24 VDC	3PDT	10	8.40	7.98	7.56
KU14D15	110 VDC	3PDT	10	11.15	10.59	10.04



KUP,
KUEP,
KUMP

KUP and KUMP Series: Relays have polycarbonate covers. UL recognized and CSA listed. Models with suffix **25** have push-to-test button to manually actuate contacts; models with suffix **35** have neon lamp to indicate coil power; models with suffix **45** have both button and lamp. **Contact Rating:** KUP with suffix **11**, 5 amps at 28 VDC or 240 VAC; all other KUP models, 10 amps at 28 VDC or 240 VAC. KUMP models, 15 amps at 277 VAC. **Terminals:** .187" quick-connect/solder. **Mounting:** KUP with suffix **55**, bracket mounted; all others use sockets and hold-down springs. **Weight:** 3 ozs.

P & B Number■	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps. Typ.	1-24	25-50	51-99
KUEP3A15	120 VAC	SPST	10	$ 9.50	$ 9.03	$ 8.55
KUEP3D15	24 VDC	SPST	10	8.85	8.41	7.97
KUMP11A18	6, 12, 24, 120 VAC	DPDT	15	8.95	8.50	8.06
KUMP11A18	240 VAC	DPDT	15	10.65	10.12	9.59
KUMP11D18	5, 6, 12, 24 VDC	DPDT	15	8.65	8.22	7.79
KUMP11D18	110 VDC	DPDT	15	11.40	10.83	10.26
KUP5A15	6, 12, 24, 120 VAC	SPDT	10	6.80	6.46	6.12
KUP5A15	240 VAC	SPDT	10	8.50	8.08	7.65
KUP5D15	5, 6, 12, 24 VDC	SPDT	10	6.25	5.94	5.63
KUP5D15	110 VDC	SPDT	10	9.00	8.55	8.10
KUP11A11	120 VAC	DPDT	5	8.10	7.70	7.29
KUP11D11	24 VDC	DPDT	5	7.65	7.27	6.89
KUP11A15	6, 12, 24, 120 VAC	DPDT	10	8.00	7.60	7.20
KUP11A15	240 VAC	DPDT	10	9.70	9.22	8.73
KUP11D15	5, 6, 12, 24 VDC	DPDT	10	7.55	7.17	6.80
KUP11D15	110 VDC	DPDT	10	10.30	9.79	9.27
KUP11A25	120 VAC	DPDT	10	9.35	8.88	8.42
KUP11A35	24 VAC	DPDT	10	12.30	11.69	11.07
KUP11A35	120 VAC	DPDT	10	9.80	9.31	8.82
KUP11D35	12, 24 VDC	DPDT	10	11.85	11.26	10.67
KUP11D35	110 VDC	DPDT	10	12.10	11.50	10.89
KUP14A11	120 VAC	3PDT	5	9.05	8.60	8.15
KUP14A15	6, 12, 24, 120 VAC	3PDT	10	8.90	8.46	8.01
KUP14A15	240 VAC	3PDT	10	10.60	10.07	9.54
KUP14D11	24 VDC	3PDT	5	8.85	8.41	7.97
KUP14D15	6, 12, 24 VDC	3PDT	10	8.70	8.27	7.83
KUP14D15	48 VDC	3PDT	10	10.15	9.64	9.14
KUP14D15	110 VDC	3PDT	10	11.45	10.88	10.31
KUP14A25	120 VAC	3PDT	10	10.25	9.74	9.23
KUP14D25	24 VDC	3PDT	10	10.05	9.55	9.05
KUP14D35	24 VDC	3PDT	10	13.00	12.35	11.70
KUP14A35	120 VAC	3PDT	10	10.70	10.17	9.63
KUP14A45	120 VAC	3PDT	10	11.90	11.31	10.71
KUP5A55	120 VAC	SPDT	10	7.10	6.75	6.39
KUP5D55	24 VDC	SPDT	10	6.55	6.22	5.90
KUP11A55	24, 120 VAC	DPDT	10	8.30	7.89	7.47
KUP11D55	6, 12, 24 VDC	DPDT	10	7.85	7.46	7.07
KUP11D55	48 VDC	DPDT	10	9.30	8.84	8.37
KUP11D55	110 VDC	DPDT	10	10.60	10.07	9.54
KUP14A55	6, 12, 24, 120 VAC	3PDT	10	9.20	8.74	8.28
KUP14A55	240 VAC	3PDT	10	10.90	10.36	9.81
KUP14D55	6, 12, 24 VDC	3PDT	10	9.00	8.55	8.10
KUP14D55	110 VDC	3PDT	10	11.75	11.16	10.58
KUP17A19	24, 120 VAC	4PDT	10	14.05	13.35	12.65
KUP17D19	12, 24 VDC	4PDT	10	13.15	12.49	11.84
KUP17A55	24, 120 VAC	4PDT	10*	14.15	13.44	12.74
KUP17D55	12, 24 VDC	4PDT	10*	13.25	12.59	11.93

■Specify coil voltage when ordering. *To 10 amps per pole, not to exceed 30 amps total for four poles.

KNP

KNP Series: Small relay designed for economical chassis space. Recognized under UL component program and CSA listing for ratings of 1/10 hp at 120 VAC, 3 amps at 32 VDC, resistive, or 3 amps at 240 VAC. Fine silver cross bar contacts. Terminals are .110" quick-connect/solder. **Mounting:** Suffix **11**, 6-32 tapped hole with locating tab; suffix **21**, 3-48 stud. Clear, polycarbonate cover. **Size:** 1.00" × .98" × 1.45". **Weight:** 1.4 ozs.

P & B Number■	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps, Typ.	1-24	25-50	51-99
KNP5A21	12, 24, 120 VAC	SPDT	3	$14.10	$13.40	$12.69
KNP5D21	6, 12, 24 VDC	SPDT	3	12.00	11.40	10.80
KNP11A11	120 VAC	DPDT	3	17.10	16.25	15.39
KNP11A21	12, 24, 120 VAC	DPDT	3	16.74	15.90	15.07
KNP11D11	12, 24, VDC	DPDT	3	14.52	13.79	13.07
KNP11D21	6, 12, 24 VDC	DPDT	3	14.28	13.57	12.85
KNP11D21	48 VDC	DPDT	3	14.52	13.79	13.07
KNP14A21	24, 120 VAC	3PDT	3	19.50	18.53	17.55
KNP14D21	12, 24 VDC	3PDT	3	17.04	16.19	15.34

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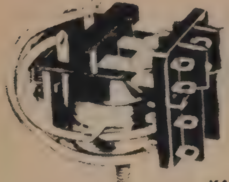
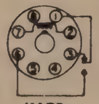
GENERAL PURPOSE RELAYS

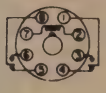

KA

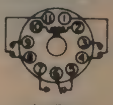
KAP

KA and KAP Series: Small, efficient relays for light power loads. The series has CSA listing and carries UL component recognition. CSA listed. **Contacts:** Suffix **Y**, 5 amps at 120 VAC or 3 amps at 240 VAC; suffix **G**, silver cadmium rated at 10 amps at 120 VAC or 6 amps at 240 VAC. **Mounting:** KA, 6-32 stud and locating tab on .438" ctrs.; KAP11, 8-pin plug; KAP14, 11-pin plug. **Size:** KA, 1.844" × 1.468" × 1.687"; KAP, clear polycarbonate cover, 1.531" × 1.437" × 2.281". **Weight:** 3 ozs.

P & B Numbers■	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps, Typ.	1-24	25-50	51-99
KA5AY	6, 12, 24, 120 VAC	SPDT	5	$ 7.61	$ 7.23	$ 6.85
KA5AY	240 VAC	SPDT	5	9.24	8.78	8.32
KA5AG	6, 12, 24, 120 VAC	SPDT	10	8.19	7.78	7.37
KA5AG	240 VAC	SPDT	10	9.29	8.83	8.36
KA5DY	6, 12, 24 VDC	SPDT	5	7.56	7.18	6.80
KA5DY	110 VDC	SPDT	5	8.72	8.28	7.85
KA5DG	6, 12, 24 VDC	SPDT	10	7.67	7.29	6.90
KA5DG	110 VDC	SPDT	10	8.77	8.33	7.89
KA11AY	6, 12, 24, 120 VAC	DPDT	5	9.19	8.73	8.27
KA11AY	240 VAC	DPDT	5	10.55	10.02	9.50
KA11AG	6, 12, 24, 120 VAC	DPDT	10	9.61	9.13	8.65
KA11AG	240 VDC	DPDT	10	10.76	10.22	9.68
KA11DY	6, 12, 24 VDC	DPDT	5	8.93	8.48	8.04
KA11DY	48 VDC	DPDT	5	9.71	9.22	8.74
KA11DY	110 VDC	DPDT	5	9.92	9.42	8.93
KA11DG	6, 12, 24 VDC	DPDT	10	9.45	8.98	8.51
KA11DG	110 VDC	DPDT	10	10.34	9.82	9.31
KA14AY	6, 12, 24, 120 VAC	3PDT	5	11.24	10.68	10.12
KA14AY	240 VAC	3PDT	5	12.39	11.77	11.15
KA14AG	6, 12, 24, 120 VAC	3PDT	10	12.29	11.68	11.06
KA14AG	240 VAC	3PDT	10	12.97	12.32	11.67
KA14DY	6, 12, 24 VDC	3PDT	5	11.34	10.77	10.21
KA14DY	110 VDC	3PDT	5	12.02	11.42	10.82
KA14DG	6, 12, 24 VDC	3PDT	10	12.34	11.72	11.11
KA14DG	110 VDC	3PDT	10	13.13	12.47	11.82
KAP5AG	24, 120 VAC	SPDT	10	13.49	12.82	12.14
KAP5DG	24 VDC	SPDT	10	13.13	12.47	11.82
KAP5DG	110 VDC	SPDT	10	14.81	14.07	13.33
KAP11AY	24, 120 VAC	DPDT	5	14.81	14.07	13.33
KAP11AY	240 VAC	DPDT	5	15.54	14.76	13.99
KAP11AG	6, 24, 120 VAC	DPDT	10	15.07	14.32	13.56
KAP11DG	12, 24 VDC	DPDT	10	14.91	14.16	13.42
KAP11DG	110 VDC	DPDT	10	16.28	15.47	14.65
KAP11DY	12, 24 VDC	DPDT	5	14.65	13.92	13.19
KAP11DY	110 VDC	DPDT	5	16.12	15.31	14.51
KAP14AY	24, 120 VAC	3PDT	5	18.22	17.31	16.40
KAP14AY	240 VAC	3PDT	5	18.90	17.96	17.01
KAP14AG	24, 120 VAC	3PDT	10	18.43	17.51	16.59
KAP14DG	24 VDC	3PDT	10	18.38	17.46	16.54
KAP14DG	110 VDC	3PDT	10	19.74	18.75	17.77
KAP14DY	12, 24 VDC	3PDT	5	18.01	17.11	16.21
KAP14DY	110 VDC	3PDT	5	19.22	18.26	17.30


KAP5


KAP11


KAP14

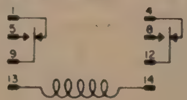
KHU17

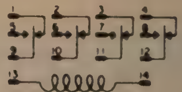
KUS

KHS and KHU Series: KHU style is recognized under component program of UL and CSA, and has clear polycarbonate cover; KHS has hermetically sealed metal cover. Designed for data processing, computers and process control. **Contacts Available:** Suffix **1**, silver rated 3 amps at 30 VDC or 120 VAC; suffix **2**, silver cadmium oxide rated 3 amps; suffix **3**, gold alloy rated low level to 1 amp; suffix **6**, gold overlay on silver, bifurcated, rated 1 amp at 30 VDC, resistive, or 120 VAC. Suffix **N** denotes neon lamp in parallel with coil for visual indication. Solder terminals. Mount with 3-48 stud or socket. **Weight:** KHU17, 1.12 ozs.; KHU20, 1.3 ozs.; KHS, 1.63 ozs. **Size:** KHU17, 1.109" × .859" × 1.281"; KHU20, 1.160" × 1.040" × 1.281"; KHS, 1.156" × .91" × 1.281".

P & B Numbers■	Coil Input	Contacts		Net Each, Lots of★		
		Arrangement	Amps, Typ.	1-24	25-50	51-99
KHU17A11	6, 12, 24 VAC	4PDT	3	$11.60	$11.02	$10.44
KHU17A11	120 VAC	4PDT	3	11.60	11.02	10.44
KHU17A11N	120 VAC	4PDT	3	14.55	13.82	13.10
KHU17D11	5, 6, 12, 24 VDC	4PDT	3	9.90	9.41	8.91
KHU17D11	48 VDC	4PDT	3	10.25	9.74	9.23
KHU17D11	90, 110 VDC	4PDT	3	11.50	10.93	10.35
KHU17D11	110 VDC	4PDT	3	12.15	11.54	10.94
KHU17D11N	120 VDC	4PDT	3	15.40	14.63	13.86
KHU17A12	120 VAC	4PDT	3	11.60	11.02	10.44
KHU17D12	12, 24 VDC	4PDT	3	9.90	9.41	8.91
KHU17D12	48 VDC	4PDT	3	10.25	9.74	9.23
KHU17D12	110 VDC	4PDT	3	12.15	11.54	10.94
KHU17A13	120 VAC	4PDT	1	33.80	32.11	30.42
KHU17A18	120 VAC	4PDT	3	12.20	11.59	10.98
KHU17D13	24 VDC	4PDT	1	32.10	30.50	28.89
KHU17D13	48 VDC	4PDT	1	32.45	30.83	29.21
KHU17D16	12, 24 VDC	4PDT	1	11.45	10.88	10.31
KHU17A16	120 VAC	4PDT	2	13.15	12.49	11.84
KHS17A11	6, 12, 24 VAC	4PDT	3	19.45	18.48	17.51
KHS17A11	120 VAC	4PDT	3	19.45	18.48	17.51
KHS17A12	120 VAC	4PDT	3	19.45	18.48	17.51
KHS17A13	120 VAC	4PDT	1	47.50	45.13	42.75
KHS17D11	6, 12, 24 VDC	4PDT	3	17.75	16.86	15.98
KHS17D11	48 VDC	4PDT	3	18.10	17.20	16.29
KHS17D11	110 VDC	4PDT	3	20.00	19.00	18.00
KHS17D12	24 VDC	4PDT	3	17.75	16.86	15.98
KHS17D12	110 VDC	4PDT	3	20.00	19.00	18.00
KHS17D13	24 VDC	4PDT	1	45.80	43.51	41.22

■Specify coil voltage when ordering.





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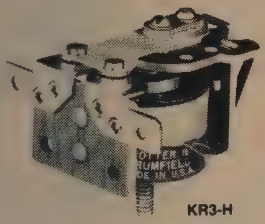
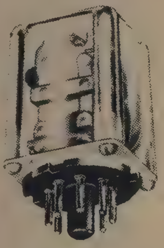
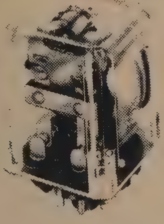
GENERAL PURPOSE RELAYS


KR3-H


KRP


KRP-N

UL recognized KR3-H and KRP3-H Series: Small, heavy-duty relay. Silver cadmium oxide contacts rated 20 amps at 120 VAC, resistive, or 28 VDC; 1 hp at 120/240 VAC, 60 Hz. **Terminals:** KR3-H, .250" quick-connect/solder for the contacts, solder only for the coil; KRP3-H, octal plug. **Mounting:** KR3-H, 6-32 stud and locating tab on .437" ctrs. **Size:** KR3-H, 1.67" × 1.6" × 1.52"; KRP3-H, 1.406" × 1.531" × 2.281". **Weight:** KR3-H, 2 ozs; KRP3-H, 3 ozs.

KR11-E and KR14-E Series: Hermetically sealed in metal can with octal plug. **Contacts:** Silver rated 5 amps at 120 VAC or 28 VDC, resistive; except suffix **G** denotes silver cadmium oxide rated 10 amps at 120 VAC or 28 VDC, resistive. **Size:** 1.656" × 1.437" × 2.125".

CSA & UL recognized KRP Series: Clear, polycarbonate cover. Octal plug on KRP5 and KRP11; 11-pin plug on KRP14. **Contacts:** Silver rated 5 amps except suffix **G** denotes silver cadmium oxide rated 10 amps. **Size:** 1.406" × 1.406" × 2.00". **Weight:** 3 oz.

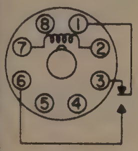
UL KRP-N Series: A general purpose relay incorporating a lamp in parallel with the coil. **Contacts:** Silver cadmium oxide rated 10 amps. Clear polycarbonate cover and octal plug. **Size:** 1.406" × 1.406" × 2.00". **Weight:** 3 ozs.

UL KRPA Series: A low cost version of the KRP relay. Clear polycarbonate cover with octal plug. **Contacts:** Silver rated 5 amps; silver cadmium oxide rated 10 amps. **Size:** 1.406" × 1.406" × 2.000". **Weight:** 3 ozs.

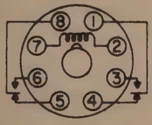
UL KRPA-N Series: Same, except incorporates lamp in parallel with relay coil.

P & B Numbers■	Coil Input	Contacts		Net Each, Lots of⋆		
		Arrangement	Amps, Typ.	1-24	25-50	51-99
KR3AH	12, 24, 120 VAC	SPST*	20	$11.55	$10.97	$10.40
KR3DH	12, 24 VDC	SPST*	20	11.34	10.77	10.21
KR3DH	110 VDC	SPST*	20	12.39	11.77	11.15
KR11AE●	120 VAC	DPDT	5	32.66	31.03	29.39
KR11AGE●	120 VAC	DPDT	10	33.71	32.02	30.34
KR11DE●	24 VDC	DPDT	5	32.03	30.43	28.83
KR11DGE●	12, 24 VDC	DPDT	10	33.02	31.37	29.72
KR14AGE●	120 VAC	3PDT	10	44.00	41.80	39.60
KR14DGE●	24 VDC	3PDT	10	43.68	41.50	39.31
KRP3AH▲	12, 24, 120 VAC	SPST*	20	16.33	15.51	14.70
KRP3DH▲	12, 24 VDC	SPST*	20	16.07	15.27	14.46
KRP3DH▲	110 VDC	SPST*	20	17.22	16.36	15.50
KRP5AY▲	6, 12, 24, 120 VAC	SPDT	5	12.44	11.82	11.20
KRP5AG▲	6, 12, 24, 120 VAC	SPDT	10	12.97	12.32	11.67
KRP5DY▲	6, 12, 24 VDC	SPDT	5	12.39	11.77	11.15
KRP5DY▲	110 VDC	SPDT	5	13.91	13.21	12.52
KRP5DG▲	6, 12, 24 VDC	SPDT	10	12.92	12.27	11.63
KRP5DG▲	110 VDC	SPDT	10	14.28	13.57	12.85
KRP11AY▲	6, 12, 24, 120 VAC	DPDT	5	14.07	13.37	12.66
KRP11AY▲	240 VAC	DPDT	5	14.81	14.07	13.33
KRP11AG▲	6, 12, 24, 120 VAC	DPDT	10	14.44	13.72	13.00
KRP11AG▲	240 VAC	DPDT	10	15.28	14.52	13.75
KRP11DY▲	6, 12, 24 VDC	DPDT	5	13.91	13.21	12.52
KRP11DY▲	48 VDC	DPDT	5	14.60	13.87	13.14
KRP11DY▲	110 VDC	DPDT	5	15.28	14.52	13.75
KRP11DG▲	6, 12, 24 VDC	DPDT	10	14.39	13.67	12.95
KRP11DG▲	48 VDC	DPDT	10	15.23	14.47	13.71
KRP11DG▲	110 VDC	DPDT	10	15.70	14.92	14.13
KRP11DG▲	125 VDC	DPDT	10	15.86	15.07	14.27
KRP14AY▲	6, 12, 24, 120 VAC	3PDT	5	17.33	16.46	15.60
KRP14AY▲	240 VAC	3PDT	5	17.96	17.06	16.16
KRP14AG▲	6, 12, 24, 120 VAC	3PDT	10	17.75	16.86	15.98
KRP14AG▲	240 VAC	3PDT	10	18.80	17.86	16.92
KRP14DY▲	6, 12, 24 VDC	3PDT	5	17.22	16.36	15.50
KRP14DY▲	48 VDC	3PDT	5	17.75	16.86	15.98
KRP14DY▲	110 VDC	3PDT	5	18.48	17.56	16.63
KRP14DG▲	6, 12, 24 VDC	3PDT	10	17.64	16.76	15.88
KRP14DG▲	48 VDC	3PDT	10	18.59	17.66	16.73
KRP14DG▲	110 VDC	3PDT	10	19.06	18.11	17.15
KRP11AN▲	6, 12, 24, 120 VAC	DPDT	10	16.43	15.61	14.79
KRP11AN▲	240 VAC	DPDT	10	17.38	16.51	15.64
KRP11DN▲	6, 12, 24 VDC	DPDT	10	16.33	15.51	14.70
KRP11DN▲	110 VDC	DPDT	10	17.64	16.76	15.88
KRP14AN▲	6, 12, 24, 120 VAC	3PDT	10	20.00	19.00	18.00
KRP14AN▲	240 VAC	3PDT	10	20.95	19.90	18.86
KRP14DN▲	24 VDC	3PDT	10	19.74	18.75	17.77
KRP14DN▲	110 VDC	3PDT	10	21.16	20.10	19.04
KRPA5AY▲	6, 12, 24, 120 VAC	SPDT	5	9.55	9.07	8.60
KRPA5AG▲	6, 12, 24, 120 VAC	SPDT	10	9.90	9.41	8.91
KRPA5DY▲	6, 12, 24 VDC	SPDT	5	9.50	9.03	8.55
KRPA5DY▲	110 VDC	SPDT	5	10.65	10.12	9.59
KRPA5DG▲	6, 12, 24 VDC	SPDT	10	9.90	9.41	8.91
KRPA5DG▲	110 VDC	SPDT	10	10.95	10.40	9.86
KRPA11AY▲	6, 12, 24, 120 VAC	DPDT	5	10.80	10.26	9.72
KRPA11AY▲	240 VAC	DPDT	5	11.40	10.83	10.26
KRPA11AG▲	6, 12, 24, 120 VAC	DPDT	10	11.05	10.50	9.95
KRPA11AG▲	240 VAC	DPDT	10	11.70	11.12	10.53
KRPA11DY▲	6, 12, 24 VDC	DPDT	5	10.65	10.12	9.59
KRPA11DY▲	48 VDC	DPDT	5	11.20	10.64	10.08
KRPA11DY▲	110 VDC	DPDT	5	11.70	11.12	10.53
KRPA11DG▲	6, 12, 24 VDC	DPDT	10	11.05	10.50	9.95
KRPA11DG▲	48 VDC	DPDT	10	11.65	11.07	10.49
KRPA11DG▲	110 VDC	DPDT	10	12.05	11.45	10.85
KRPA14AY▲	6, 12, 24, 120 VAC	3PDT	5	13.30	12.64	11.97
KRPA14AY▲	240 VAC	3PDT	5	13.80	13.11	12.42
KRPA14AG▲	6, 12, 24, 1210 VAC	3PDT	10	13.60	12.92	12.24
KRPA14AG▲	240 VAC	3PDT	10	14.45	13.73	13.01
KRPA14DY▲	6, 12, 24 VDC	3PDT	5	13.20	12.54	11.88
KRPA14DY▲	48 VDC	3PDT	5	13.65	12.97	12.29
KRPA14DY▲	110 VDC	3PDT	5	14.20	13.49	12.78
KRPA14DG▲	6, 12, 24 VDC	3PDT	10	13.55	12.87	12.20
KRPA14DG▲	48 VDC	3PDT	10	14.25	13.54	12.83
KRPA14DG▲	110 VDC	3PDT	10	14.65	13.92	13.19
KRPA11AN▲	6, 12, 24, 120 VAC	DPDT	10	12.60	11.97	11.34
KRPA11AN▲	240 VAC	DPDT	10	13.30	12.64	11.97
KRPA11DN▲	6, 12, 24 VDC	DPDT	10	12.50	11.88	11.25
KRPA11DN▲	110 VDC	DPDT	10	13.55	12.87	12.20
KRPA14AN▲	6, 12, 24, 120 VAC	3PDT	10	15.35	14.58	13.82
KRPA14AN▲	240 VAC	3PDT	10	16.10	15.30	14.49
KRPA14DN▲	24 VDC	3PDT	10	15.15	14.39	13.64

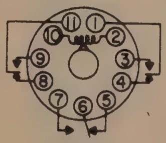
*Normally open—double make. ●Sealed relay. ▲Enclosed relay. ■Specify coil voltage when ordering.



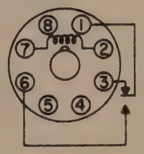
KRPA5



KRPA11



KRPA14



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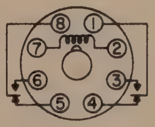

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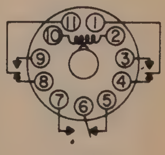

KRP14

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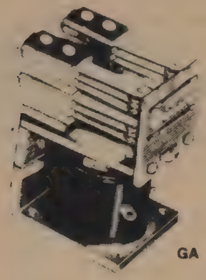
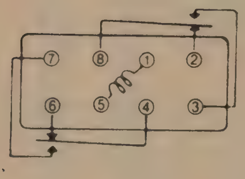
GENERAL PURPOSE RELAYS


GA

GA Series: Multiple contact, voltage operated relay designed for industrial control applications. Self-cleaning, silver contacts rated 5 amps at 28 VDC or 120 VAC. Tinned, pierced, solder type terminals. Mounts on 8-32 tapped core with locating boss. **Size:** 1.063" × 1.719" × 1.781". **Weight:** 3½ ozs.

P & B Numbers	Coil Input	Contacts		Net Each, Lots of *		
		Arrange-ment	Amps, Typ.	1-24	25-50	51-99
GA11A	6, 12, 24, 120 VAC	DPDT	5	$16.36	$15.54	$14.72
GA11D	6, 12, 24 VDC	DPDT	5	16.25	15.44	14.63
GA11D	110 VDC	DPDT	5	17.01	16.16	15.31
GA14A	24, 120 VAC	3PDT	5	21.01	19.96	18.91
GA17A	12, 24, 120 VAC	4PDT	5	25.11	23.85	22.60
GA17A	240 VAC	4PDT	5	25.38	24.11	22.84
GA17D	6, 12, 24 VDC	4PDT	5	24.08	22.88	21.67
GA17D	110 VDC	4PDT	5	24.84	23.60	22.36

HP, HPS



HP Series: Designed for TV cameras, computers, copiers, etc. Terminals on a .2" grid for plug-in or PC board. DPDT contacts rated 2 amps at 28 VDC, resistive; 0.5 amp at 120 VAC. Has nylon, non-hermetic cover. **Size:** .48" × .88" × .49". **Weight:** 0.3 oz.

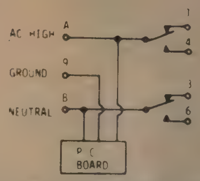
HPS Series: Hermetically sealed version of HP. For reliable performance in logic circuits or where prolonged submersion in cleaning solvents is required. Sealed metal cover. **Size:** .41" × .81" × .41". **Weight:** 0.25 oz.

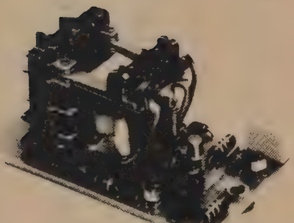
P & B Numbers■	Coil Input	Contacts		Net Each, Lots of *		
		Arrange-ment	Amps, Typ.	1-24	25-50	51-99
HP11D	5, 6, 12, 24 VDC	DPDT	2	$19.11	$18.15	$17.20
HP11D	48 VDC	DPDT	2	19.90	18.91	17.91
HPS11D	12, 24 VDC	DPDT	2	22.52	21.39	20.27

■Specify coil voltage when ordering.

GROUND LINE INTEGRITY MONITOR

The ground line integrity monitor is intended to detect inordinate leakage currents and excessive resistance in ground lines from motors, etc. Resistances above approx. 1 megohm and/or currents developing voltages of 15 V rms, max., will trip the output relay and remove power from the load. The fault condition must be removed before power can be reapplied. **Size:** 3.30" lg. × 1.80" w. × 1.50" h. max. **Contacts:** DPDT. **Oper. Temp.:** 0°C to +55°C. **Terminals:** .187" quick-connect and solder lugs.




CZS

P & B Number	Input Volts	Output Amps/Volts	Net Each, Lots of		
			1-9	10-24	25-49
CZS-01-70000●	120	10/120	$53.48	$50.81	$48.13
CZS-01-70001●	120	15/120	55.09	52.34	49.58

●UL Recognized.

AC CURRENT SENSOR

SDAS

The SDAS-01 is a field-adjustable AC current sensor. To sense current, the unit must be inductively coupled to a power line by passing the insulated power line conductor through the loop on the end of the enclosure. The unit's solid-state sensing circuit controls an internal DPDT relay. Both undercurrent and overcurrent models are available. The undercurrent unit's relay picks up when sense current drops below the potentiometer setting for at least 350 msec. It remains energized until sense current exceeds the potentiometer setting or control voltage is removed. A 350 msec delay after control voltage is applied allows line components time to turn on. The overcurrent unit's relay energizes when sense current exceeds the potentiometer setting for longer than the built-in delay allows (200 msec, min.). Actual time delay depends on the potentiometer setting and the magnitude of overcurrent. The relay remains energized until control voltage is removed, even if the overcurrent condition ceases to exist. The SDAS-01 is enclosed in a polycarbonate cover measuring 1.406" × 1.531" × 2.781" high; the sensing loop extends .515" above the cover. Terminals are .187" quick-connect type and fit into standard KU sockets. **Contacts:** DPDT rated 2 amps at 28 VDC, 1 amp at 120 VAC, resistive. **Control Voltage:** 24 VAC, 50/60 Hz, or DC, 1.7 watts or 1.7 VA. **Sense-Current Range:** 1.5 to 15 amps AC. **Operating Temperature Range:** −40°C to +85°C.

P & B Number	Description	Net Each*
SDAS-01-7Y2S1024	Undercurrent	$62.68
SDAS-01-8Y2S1024	Overcurrent	56.06

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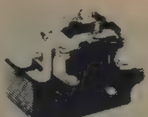
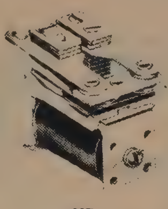
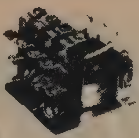
AMF | POTTER & BRUMFIELD Relays

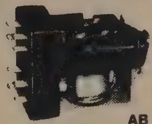

PRD 11

ABC


MB

P25


PM


AB

MR

S87R

AB Series: UL and CSA recognized. For applications requiring long life and quiet operation. Connections are .250" quick-connect; screw adapters are available. Contacts are silver. **Contact Rating:** Suffix **H**, 15 amps at 277 VAC; suffix **Y**, 10 amps at 120 VAC or 5 amps at 240 VAC, resistive. **Mounting:** Two 8-32 tapped holes on 1.25" ctrs. **Size:** 1.375" × 1.906" × 3.0". **Weight:** 5 ozs.

ABC Series: AB type in non-hermetic metal cover. **Mounting:** 8-32 stud and locating tab on .562" ctrs. **Size:** 2.094" × 1.469" × 2.781". **Weight:** 7 ozs.

MB Series: Miniature DC contactor designed for very high current applications. Silver contacts rated 60 amps at 28 VDC, resistive. **Mounting:** Four 3-48 tapped holes on .375" × .375" ctrs. **Weight:** 2 ozs. **Size:** 1.44" × .88" × 1.66".

UL recognized P25 Series: Designed for 3-phase motor loads of up to 25 amps at 600 VAC, resistive loads of up to 30 amps at 600 VAC. Contacts are field-replaceable silver-cadmium oxide in a 3PST-NO-DM arrangement. Main contact terminals are 8-32 screws for straight-through wiring. Other terminals are available. Coil terminals are combination screw and ¼" quick-connect. P25C models have an auxiliary SPDT snap switch with silver contacts rated 10 amps at 125-250 VAC and ¼" quick-connect terminals. Models with "1" as the eighth character in the part No. mount using two #10 screws on 2.125" centers. Others have universal mounting plate. All P25 Series relays, except P25P42-D22P1, are CSA certified.

UL P30/P40 Series: Similar to Series P25, except all models have mounting plate and P30 is rated for 30 amp motor loads and P40 is rated for 40 amp motor loads.

MR Series: A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Silver contacts. **Mounting:** Two .156" dia. holes on 2.25" ctrs. for MR3 and MR11; on 2.625" ctrs. for MR5 and MR14. **Size:** 2.969" × 2.188" × 2.0". **Weight:** 4 ozs.

PM Series: A compact power relay for polyphase and heavy duty applications. Type PM has screw terminals; type PMT has .250" quick-connect terminals. Contacts are silver cadmium oxide rated 25 amps at 240 VAC, resistive; 1 hp per movable arm at 120 or 240 VAC. UL and CSA. **Mounting:** one front keyhole and two rear slots for 8-32 screws. **Size:** 3.394" × 2.657" × 2.719". **Weight:** 14 ozs.

PRD Series: A direct replacement for the popular PR series. Has reinforced screw terminals and plastic enclosure around coil. UL and CSA listed. PRD relays with 12 or 24 VDC coils are compatible with IC drivers used to terminate logic boards. PRDA11AYA relay has an auxiliary miniature snap-action switch with SPDT contacts rated 5 amps at 120 VAC. **Mounting:** Two .188" dia. holes on 1.875" ctrs. **Size:** 2.531" × 3.375" × 2.50". **Weight:** 11 ozs. UL listed.

S87R Series: UL recognized for use in vending machines, washing machines, machine tool control systems, etc. Connections are .250" quick-connect. **Contact Rating:** 20 amps at 277 VAC; 60 LRA, 12 FLA, 1 HP at 125 VAC; 48 LRA, 8 FLA, 2 HP at 250 VAC. **Pilot Duty:** 360 VA, 125/250 VAC. **Mounting:** 166" diam. hole and .160" diam. boss. **Size:** 1.62" × 2.60" × 2.07".

SEE ANOTHER P & B PAGE FOR ACCESSORIES

PRICES SHOWN ARE FOR REFERENCE ONLY

P & B Number■	Coil Input	Contacts		Net Each, Lots of		
		Arrangement	Amps, Max.	1-24	25-50	51-99
AB11AH	24, 120 VAC	DPDT	15	$19.25	$18.29	$17.33
AB11AH	240 VAC	DPDT	15	20.35	19.33	18.32
AB11AY	24, 120 VAC	DPDT	10	19.47	18.50	17.52
AB11AY	240 VAC	DPDT	10	20.57	19.54	18.51
AB11DH	12, 24 VDC	DPDT	15	20.30	19.29	18.27
AB11DY	12, 24 VDC	DPDT	10	20.68	19.65	18.61
ABC11AH▲	120 VAC	DPDT	15	20.30	19.29	18.27
ABC11AY▲	24, 120 VAC	DPDT	10	20.63	19.60	18.57
ABC11AY▲	240 VAC	DPDT	10	21.67	20.59	19.50
ABC11DH▲	12, 24 VDC	DPDT	15	21.29	20.23	19.16
ABC11DH▲	110 VDC	DPDT	15	22.50	21.38	20.25
ABC11DY▲	12, 24 VDC	DPDT	10	21.67	20.59	19.50
MB3D	6, 12, 24 VDC	SPST□	60	22.26	21.15	20.03
MB3D	110 VDC	SPST□	60	22.89	21.75	20.60
MR3A	24, 120 VAC	SPST□	10	15.29	14.53	13.76
MR3D	12, 24 VDC	SPST□	10	15.79	15.00	14.21
MR5A	6, 12, 24, 120 VAC	SPDT	8	13.04	12.39	11.74
MR5A	240 VAC	SPDT	8	14.41	13.69	12.97
MR5D	6, 12, 24 VDC	SPDT	8	13.20	12.54	11.88
MR5D	110 VDC	SPDT	8	14.52	13.79	13.07
MR11A	6, 12, 24, 120 VAC	DPDT	8	17.44	16.57	15.70
MR11A	240 VAC	DPDT	8	18.54	17.61	16.69
MR11D	6, 12, 24 VDC	DPDT	8	17.55	16.67	15.80
MR11D	110 VDC	DPDT	8	18.76	17.82	16.88
MR14A	6, 24, 120 VAC	3PDT	8	23.54	22.36	21.19
MR14A	240 VAC	3PDT	8	24.42	23.20	21.98
MR14D	24 VDC	3PDT	8	23.60	22.42	21.24
MR14D	110 VDC	3PDT	8	24.59	23.36	22.13
P25C42A12D1	24, 120, 240 VAC	3PST□•	25	23.40	22.23	21.06
P25C42A22D1	24, 120, 240 VAC	3PST□•	25	24.25	23.04	21.83
P25P42A12P1	24, 120, 240 VAC	3PST□	25	21.55	20.47	19.40
P25P42A22P1	24, 120, 240 VAC	3PST□	25	22.40	21.28	20.16
P25P42D22P1	12, 24 VDC	3PST□	25	19.75	18.76	17.78
P25P42D22P1	120 VDC	3PST□	25	20.30	19.29	18.27
P30P42A12P1	24, 120, 240 VAC	3PST#	30	25.75	24.46	23.18
P30C42A12D1	24, 120, 240 VAC	3PST#•	30	28.75	27.31	25.88
P30P42D12P1	12, 24 VDC	3PST□	30	23.25	22.09	20.93
P30P42D12P1	120 VDC	3PST□	30	23.75	22.56	21.38
P30P47A12P1	24, 120, 240 VAC	4PST#	30	29.30	27.84	29.37
P30C47A12D1	24, 120, 240 VAC	4PST#•	30	32.30	30.69	29.07
P30P47D12P1	12, 24 VDC	4PST□	30	26.40	25.08	23.76
P30P47D12P1	120 VDC	4PST□	30	27.30	25.94	24.57
P40P42A12P1	24, 120, 240 VAC	3PST#	40	26.95	25.60	24.26
P40C42A12D1	24, 120, 240 VAC	3PST#•	40	29.95	28.45	26.96
P40P42D12P1	12, 24 VDC	3PST□	40	24.45	23.23	22.01
P40P42D12P1	120 VDC	3PST□	40	24.95	23.70	22.46
P40P47A12P1	24, 120, 240 VAC	4PST#	40	30.95	29.40	27.86
P40C47A12D1	24, 120, 240 VAC	4PST#•	40	33.95	32.25	30.56
P40P47D12P1	12, 24 VDC	4PST□	40	28.05	26.65	25.26
P40P47D12P1	120 VDC	4PST□	40	28.95	27.50	26.06
PM17AY	6, 12, 24, 120 VAC	4PDT	25	32.55	30.92	29.30
PM17AY	240 VAC	4PDT	25	32.70	31.07	29.43
PM17AY	480 VAC	4PDT	25	35.15	33.39	31.64
PM17DY	6, 12, 24 VDC	4PDT	25	29.90	28.41	26.91
PM17DY	110 VDC	4PDT	25	31.70	30.12	28.53
PMT17AY	24, 120 VAC	4PDT	25	31.30	29.74	28.17
PRD1AYO	24, 120 VAC	SPST#	25	8.80	8.36	7.92
PRD3AYO	6, 12, 24, 120 VAC	SPST□	25	8.80	8.36	7.92
PRD3AYO	208, 240 VAC	SPST□	25	9.00	8.55	8.10
PRD3DYO	6, 12, 24 VDC	SPST□	25	8.45	8.03	7.61
PRD3DYO	110 VDC	SPST□	25	9.80	9.31	8.82
PRD5AYO	6, 12, 24, 120 VAC	SPDT	25	10.10	9.60	9.09
PRD5AYO	208, 240 VAC	SPDT	25	10.30	9.79	9.27
PRD5DYO	6, 12, 24 VDC	SPDT	25	9.75	9.26	8.78
PRD5DYO	110 VDC	SPDT	25	11.10	10.55	9.99
PRD7AGO	120 VAC	DPST#	30	10.90	10.36	9.81
PRD7AYO	6, 12, 24, 120 VAC	DPST#	25	10.95	10.40	9.86
PRD7AYO	208, 240 VAC	DPST#	25	11.15	10.59	10.04
PRD7DGO	24 VDC	DPST	30	10.55	10.02	9.50
PRD7DYO	6, 12, 24 VDC	DPST#	25	10.60	10.07	9.54
PRD7DYO	110 VDC	DPST#	25	11.95	11.35	10.76
PRD11AGO	120 VAC	DPDT	30	13.55	12.87	12.20
PRD11AYO	6, 12, 24, 120 VAC	DPDT	25	13.60	12.92	12.24
PRD11AYO	208, 240 VAC	DPDT	25	13.80	13.11	12.42
PRD11AYO	480 VAC	DPDT	25	17.80	16.91	16.02
PRDA11AYA	12, 24, 120 VAC	DPDT•	25	21.30	20.24	19.17
PRDA11AYA	240 VAC	DPDT•	25	21.50	20.43	19.35
PRD11DGO	24 VDC	DPDT	30	13.20	12.54	11.88
PRD11DYO	6, 12, 24 VDC	DPDT	25	13.25	12.59	11.93
PRD11DYO	110 VDC	DPDT	25	14.60	13.87	13.14
S87R5A2B1D1	24, 120 VAC	SPDT	20	6.04	5.74	5.44
S87R5A2B1D1	240 VAC	SPDT	20	6.67	6.34	6.00
S87R11A2B1D1	24, 120 VAC	DPDT	20	8.19	7.78	7.37
S87R11A2B1D1	240 VAC	DPDT	20	8.82	8.38	7.94
S87R5D2B1D1	12, 24 VDC	SPDT	20	5.62	5.34	5.06
S87R11D2B1D1	24 VDC	DPDT	20	7.72	7.33	6.95

□Normally open—double make. #Normally open. ▲Enclosed relay. ■Specify coil voltage when ordering. •Has auxiliary SPDT switch.

SPECIAL PURPOSE RELAYS

AP Series: A ratchet impulse relay for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 msec. Intermittent operation only. **Contacts:** Silver, rated 5 amps at 120 VAC, resistive. **Mounting:** Three .156" holes on 3.375" × .875" triangular ctrs. **Size:** 3.75" × 2.25" × 2.313". **Weight:** 7 ozs.

BU Series: AC operated buzzer has spring steel armature which buzzes when coil is energized. UL recognized CSA file. **Mounting:** 6-32 tapped core. **Size:** 1.032" × 1.375" × 1.032". **Weight:** 1⅝ ozs.

GM Series: An impulse sequencing relay especially suitable for applications requiring single-coil latching. The 2 Form C contact arrangement is switched alternately by cam action during drop-out of the armature. Can also be furnished with additional 2 Form C auxiliary contacts (L suffix). Contacts rated 3 amps at 120 VAC. **Mounting:** 8-32 tapped core with locating tab. **Weight:** 4 ozs.; with auxiliary contacts, 4.75 ozs. **Size:** 2.07" × 1.437" × 2.031".

GM1N Series: The basic structure of the GM relay with added printed circuit board with 10 or 12 steps. The board is attached to an extension of the ratchet shaft. The movable contact arm advances one position each time the armature drops out. **Contacts:** Rated .25 amp; SP 10 pos. and SP 12 pos. **Size:** 2.312" × 1.875" × 2".

KB Series: Latching relay ideal for memory work and overload applications. One coil operates relay to set latch and other coil releases it. Operates on momentary impulse to either coil. **Contacts:** Suffix **Y**, silver rated 5 amps at 120 VAC; suffix **G**, silver cadmium oxide rated 10 amps at 120 VAC. AC relays with 5 amp contacts recognized by UL and CSA. **Mounting:** Two .156" dia. holes on 1.375" ctrs. **Size:** 1.812" × 2.13" × 3.22". **Weight:** 6 ozs.

KBP Series: A KB relay enclosed in polycarbonate cover and furnished with 11-pin or 20-pin plug. Not UL recognized. **Size:** 1.781" × 2.406" × 3.56". **Weight:** 8 ozs.

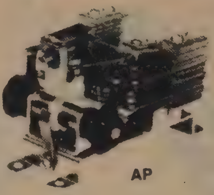
KM Series: Subminiature relay for applications requiring unusually small relays with solder terminals. **Contacts:** Silver, rated 2 amps at 28 VDC or 120 VAC, resistive. **Mounting:** 2-56 tapped core and locator on .187" ctrs. **Size:** .688" × 1.125" × .828". **Weight:** .58 oz.

KT Series: Antenna switching relay with glass base insulation for minimum RF loss while switching 300-ohm line. **Contacts:** Silver, rated 5 amps at 120 VAC or 500 watts RF. **Mounting:** 6-32 stud and locating tab on .438" ctrs. **Size:** 1.312" × 1.625" × 1.687". **Weight:** 1.5 ozs.

KUL Series: Small, magnetic latching relay. Designed for continuous duty in applications requiring good memory stability. UL recognized and CSA listed. All DPDT AC models include diodes inside the clear polycarbonate case. **Contacts:** Silver cadmium oxide, rated 10 amps at 28 VDC, resistive, or 120 VAC. **Mounting:** Socket. **Size:** 1.531" × 1.406" × 2.156". **Weight:** 3.4 ozs.

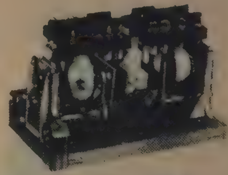
MS Series: Relay operates from back emf of motor starting winding to disconnect the starting capacitor. UL recognized. **Contacts:** MS2, fine silver, rated ¾ hp; MS4, silver cadmium, rated 3 hp. **Mounting:** Two .156" dia. holes on 1.563" ctrs. **Size:** 3.063" × 2.063" × 2.125". **Weight:** 5 ozs.

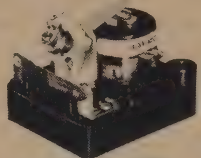
UL & CSA recognized S89R Series: A low cost, bistable, impulse relay for use where the load is on for long periods of time. A 75 msec. pulse is needed to set the relay; a second 75 msec. pulse releases the relay. **Contact Rating:** ½ HP, 125/250 VAC; 5 amps, 125 VAC inductive; ½ amp, 125 VDC; ¼ amp, 250 VDC. **Mounting:** Two 8-32 tapped holes on 1.844" ctrs. **Termination:** Suffix **D1**, .250" quick-connect. Suffix **C1**, .187" quick-connect. **Size:** 1.73" × 3.05" × 1.95"-2.37"; depending on contact form.


AP

BU

KM


GM


MS

KT

S-89R

P & B Number■	Coil Input	Contacts		Net Each, Lots of⋆		
		Arrangement	Amps, Typ.	1-24	25-50	51-99
AP11A	6, 12, 24, 120 VAC	DPDT	5	$47.44	$45.07	$42.70
AP11A	240 VAC	DPDT	5	47.63	45.25	42.87
AP11D	6, 12, 24 VDC	DPDT	5	47.75	45.36	42.98
AP11D	110 VDC	DPDT	5	48.38	45.96	43.54
AP17A	24, 120 VAC	4PDT	5	68.44	65.02	61.60
AP17D	12, 24 VDC	4PDT	5	66.69	63.36	60.02
BU	6, 12, 24, 120 VAC	....	....	4.70	4.47	4.23
BU	240 VAC	....	....	6.05	5.75	5.45
GM11A	24, 120 VAC	DPDT	3	38.72	36.78	34.85
GM11AL11	120 VAC	DPDT●	3	49.06	46.61	44.15
GM11D	12, 24 VDC	DPDT	3	36.41	34.59	32.77
GM11D	110 VDC	DPDT	3	36.85	35.01	33.17
GM1N10A	120 VAC	10SP	.25	38.67	36.74	34.80
GM1N12A	120 VAC	12SP	.25	37.51	35.63	33.76
GM1N10D	24 VDC	10SP	.25	38.50	36.58	34.65
GM1N12D	24 VDC	12SP	.25	36.96	35.11	33.26
KB17AY	6, 12, 24, 120 VAC	4PDT	5	26.41	25.09	23.77
KB17AY	240 VAC	4PDT	5	29.19	27.73	26.27
KB17AG	6, 12, 24, 120 VAC	4PDT	10	28.09	26.69	25.28
KB17AG	240 VAC	4PDT	10	30.03	28.53	27.03
KB17D	6, 12, 24 VDC	4PDT	5	27.14	25.78	24.43
KB17D	110 VDC	4PDT	5	28.09	26.69	25.28
KB17DG	6, 12, 24 VDC	4PDT	10	27.88	26.49	25.09
KB17DG	110 VDC	4PDT	10	29.19	27.73	26.27
KB23AY	24, 120 VAC	6PDT	5	36.23	34.42	32.61
KB23AG	24, 120 VAC	6PDT	10	38.75	36.81	34.88
KB23D	24 VDC	6PDT	5	34.13	32.42	30.72
KB23DG	24 VDC	6PDT	10	36.65	34.82	32.99
KB23DG	110 VDC	6PDT	10	37.85	35.96	34.07
KBP11DG	24 VDC	DPDT	10	35.39	33.62	31.85
KBP11A▲	120 VAC	DPDT	5	34.55	32.82	31.10
KBP11AG▲	120 VAC	DPDT	10	34.86	33.12	31.37
KBP17A▲	120 VAC	4PDT	5	47.09	44.74	42.38
KBP17AG▲	120 VAC	4PDT	10	48.30	45.89	43.47
KBP17D▲	24 VDC	4PDT	5	46.62	44.29	41.96
KBP17DG▲	12, 24 VDC	4PDT	10	47.93	45.53	43.14
KBP20A▲	120 VAC	5PDT	5	54.50	51.78	49.05
KBP20AG▲	120 VAC	5PDT	10	57.02	54.17	51.32
KBP20DG▲	12, 24 VDC	5PDT	10	55.65	52.87	50.09
KM5D	6, 12, 24 VDC	SPDT	2	18.84	17.90	16.96
KM11D	6, 12, 24 VDC	DPDT	2	21.96	20.86	19.76
KM14D	6, 12, 24 VDC	3PDT	2	26.88	25.54	24.19
KT11A	120 VAC	DPDT	5	13.91	13.21	12.52
KT11D	12 VDC	DPDT	5	13.34	12.67	12.01
KUL5A15S	120 VAC	SPDT	10	14.30	13.59	12.87
KUL5D15S	24 VDC	SPDT	10	10.85	10.31	9.77
KUL11A15S	12, 24, 120 VAC.	DPDT	10	16.40	15.58	14.76
KUL11D15D	12, 24 VDC	DPDT	10	19.80	18.81	17.82
KUL11D15S	12, 24 VDC	DPDT	10	13.05	12.40	11.75
MS2AY	120 VAC	SPST†	¾ hp	15.51	14.73	13.96
MS2AY	240 VAC	SPST†	¾ hp	15.68	14.90	14.11
MS4AY	120 VAC	SPST§	3 hp	17.93	17.03	16.14
MS4AY	240 VAC	SPST§	3 hp	18.10	17.20	16.29
S89R5ABD1	24, 120 VAC	SPDT	15	9.72	9.23	8.75
S89R5ABD1	240 VAC	SPDT	15	9.94	9.44	8.95
S89R11AAC1	6, 12, 24, 120 VAC	DPDT	15	11.72	11.13	10.55
S89R11AAC1	240 VAC	DPDT	15	11.93	11.33	10.74
S89R11ABD1	24, 120 VAC	DPDT	15	11.72	11.13	10.55
S89R11ABD1	240 VAC	DPDT	15	11.93	11.33	10.74
S89R17AAC1	24, 120 VAC	4PDT	15	16.85	16.01	15.17
S89R11DAC1	6, 12, 24 VDC	DPDT	15	11.18	10.62	10.06
S89R5DBD1	12, 24 VDC	SPDT	15	9.18	8.72	8.26
S89R17DAC1	24 VDC	4PDT	15	16.36	15.54	14.72
S89R11DBD1	12, 24 VDC	DPDT	15	11.18	10.62	10.06

†Normally closed. §Normally closed—double break. ▲Enclosed relay. ●Has auxiliary 2 Form C contacts.
■Specify coil voltage when ordering.

⋆LARGER QUANTITY PRICES ON REQUEST. PRICES SHOWN ARE FOR REFERENCE ONLY

SEE ANOTHER P & B PAGE FOR ACCESSORIES

SENSITIVE RELAYS

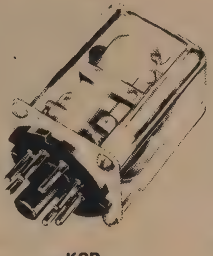
KCP Series: Low cost, DC sensitive relay enclosed in clear polycarbonate cover. **Contacts:** Silver, rated 2 amps at 30 VDC or 120 VAC, resistive. **Mounting:** KCP5 and KCP11, 8-pin plug; KCP14, 11-pin plug. **Size:** 1.406" × 1.406" × 2.0". **Weight:** 3 ozs.

LB Series: Each relay coil is wound to a specific resistance and the relay is adjusted to operate on minimum current requirements. **Contacts:** Silver, rated 5 amps at 28 VDC or 120 VAC, resistive. **Mounting:** Two .188" dia. holes on 2.219" ctrs. **Size:** 2.656" × 1.25" × 1.375". **Weight:** 2 ozs.

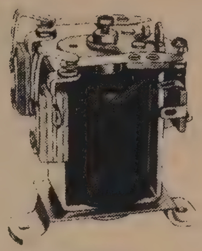
LM Series: Medium cost, high quality relay. Pick-up adjustable by tail spring adjusting screw. **Contacts:** Silver, rated 5 amps at 120 VAC. **Mounting:** Two 6-32 tapped holes on 1.813" ctrs. **Size:** 2.25" × 2.188" × 2.563". **Weight:** 5 ozs.

PW Series: For applications requiring a precision, lightweight, hermetically sealed relay. **Contacts:** Rated 1 amp at 28 VDC or 120 VAC, resistive. **Mounting:** Standard 7-pin miniature tube base. **Size:** .765" dia. × 1.688". **Weight:** 1 oz.

RS Series: Low cost, small, sensitive relay for radiosonde, light dimmer, and model applications. **Contacts:** Bar palladium, rated 2 amps at 28 VDC or 120 VAC, resistive. **Mounting:** Two 4-40 tapped holes on diagonal .75" × .625" ctrs. **Size:** 1.0" × 1.172" × .938". **Weight:** 1.5 oz.



KCP



LM

RS

P & B Number■	Coil Input	Contacts Arrange-ment	Contacts Amps, Typ.	Net Each, Lots of★ 1-24	Net Each, Lots of★ 25-50	Net Each, Lots of★ 51-99
KCP5-2500▲	7.2 mA	SPDT	2	$13.65	$12.97	$12.29
KCP5-5000▲	5.0 mA	SPDT	2	13.76	13.07	12.38
KCP5-10000▲	3.6 mA	SPDT	2	14.65	13.92	13.19
KCP11-2500▲	10 mA	DPDT	2	14.44	13.72	13.00
KCP11-5000▲	7.2 mA	DPDT	2	14.65	13.92	13.19
KCP11-10000▲	5.0 mA	DPDT	2	15.75	14.96	14.18
KCP14-2500▲	12.3 mA	3PDT	2	17.64	16.76	15.88
KCP14-5000▲	8.7 mA	3PDT	2	17.90	17.01	16.11
KCP14-10000▲	6.1 mA	3PDT	2	19.01	18.06	17.11
LB5-2500	9.0 mA	SPDT	5	12.42	11.80	11.18
LB5-5000	6.3 mA	SPDT	5	13.26	12.60	11.93
LB5-10000	4.5 mA	SPDT	5	14.34	13.62	12.91
LM5-2500	6.3 mA	SPDT	5	17.64	16.76	15.88
LM5-5000	4.5 mA	SPDT	5	17.88	16.99	16.09
LM5-10000	3.2 mA	SPDT	5	19.50	18.53	17.55
LM11-2500	9.0 mA	DPDT	5	27.12	25.76	24.41
LM11-5000	6.3 mA	DPDT	5	27.42	26.05	24.68
LM11-10000	4.5 mA	DPDT	5	28.62	27.19	25.76
PW5DS●	6, 12, 24 VDC	SPDT	1	45.30	43.04	40.77
PW5LS-5000●	2.8 mA	SPDT	1	46.02	43.72	41.42
PW5LS-10000●	2.0 mA	SPDT	1	47.22	44.86	42.50
RS5D	6, 12, VDC	SPDT	2	14.39	13.67	12.95
RS5D-2500	5.0 mA	SPDT	2	14.54	13.81	13.09
RS5D-5000	3.5 mA	SPDT	2	15.17	14.41	13.65
RS5D-10000	2.5 mA	SPDT	2	16.59	15.76	14.93

▲Enclosed relay. ●Sealed relay. ■Specify coil voltage when ordering.

HIGH RELIABILITY RELAYS

FC Series: Relay meets applicable specifications of MIL-R-5757 and MSFC-SPEC-339. **Contacts:** Bifurcated, rated dry circuit to 3 amps at 28 VDC, resistive. Terminal pins arranged on a .2" grid. **Size:** 1.10" × .925" × .485". **Weight:** 0.75 oz.

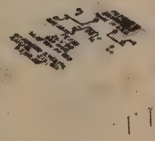
FL Series: Same specifications as FC series. Dual-coil latching relay operates by pulsing each coil alternately, or by connecting the coils in series across a reversible power source. Remains latched without coil power.

HC Series: Miniature, non-polarized, non-latching, half-size crystal case relay meeting or exceeding all applicable specifications of MIL-R-5757 and complying with MSFC-SPEC-339. Hermetically welded case. **Contacts:** Gold-plated silver, rated dry circuit to 2 amps at 28 VDC, resistive. **Mounting:** HC11D, plain case and plug-in terminals; HC11DA, shoulder brackets and hook solder terminals; HC11DB, flat mounting plate and hook solder terminals. **Size:** .81" × .41" × .41". **Weight:** 0.25 oz.

HCM Series: Military version of HC series; has same construction and mounting styles. Meets or exceeds appropriate sections of MIL-R-5757.

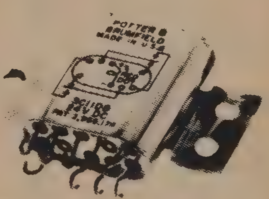
SC Series: Miniature, permanent magnet relay for low power, high shock and vibration applications. **Contacts:** Rated 2 amps at 30 VDC or 1 amp at 120 VAC. **Mounting:** SC11D, socket terminals on 0.2" grid; SC11DA, shoulder flanges with two .104" × .136" holes on 1.062" ctrs; SC11DB, welded bracket with four .125" holes on 1.062" × .281" ctrs; SC11DC, two 4-40 studs on .488" × .220" ctrs; SC11DD, plain case with hook solder terminals. **Weight:** 0.5 oz.

SL Series: Dual coil, magnetic latching version of SC series. Coils may be connected in series for polar operation.



FC, FL

HC, HCM



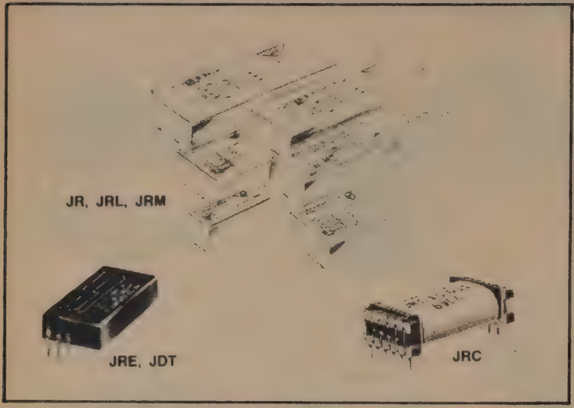
SC

P & B Number■	Coil Input	Contacts Arrange-ment	Contacts Amps, Typ.	Net Each, Lots of★ 1-24	Net Each, Lots of★ 25-50	Net Each, Lots of★ 51-99
FC11D	12, 24 VDC	DPDT	3	$70.93	$67.38	$63.84
FCH11D	24 VDC	DPDT	5	71.82	68.23	64.64
FL11D	12, 24 VDC	DPDT	3	71.24	67.68	64.12
HC11D	12, 24 VDC	DPDT	2	67.62	64.24	60.86
HC11DB	24 VDC	DPDT	2	70.09	66.59	63.08
HCM11D	24 VDC	DPDT	2	51.87	49.28	46.68
HCM11DB	24 VDC	DPDT	2	53.76	51.07	48.38
SC11D	12 VDC	DPDT	2	71.93	68.33	64.74
SC11DA	12 VDC	DPDT	2	71.72	68.13	64.55
SC11DB	12 VDC	DPDT	2	70.98	67.43	63.88
SL11D	12 VDC	DPDT	2	73.92	70.22	66.53
SL11DB	12 VDC	DPDT	2	73.92	70.22	66.53

■Specify coil voltage when ordering.

SEE ANOTHER P & B PAGE FOR ACCESSORIES

★ **LARGER QUANTITY PRICES ON REQUEST. PRICES SHOWN ARE FOR REFERENCE ONLY**



JDT DUAL THIN-LINE REED RELAYS

Low profile relays ideal for high density packaging applications. Feature hermetically sealed glass capsules in epoxy encapsulation. Dual in-line terminals on .100" grid. Contacts will switch 10 watts max., resistive, 50 VDC or .5 amp max. Operate time is 3.5 msec including bounce; release time is 3.5 msec max. Weight: .35 to .7 oz. approx.

P & B Number	No. Cav-ities	Nom. V	Res. Ohms	Contact Arrange-ment	Net Each, Lots of		
					1-9	10-24	25-99
JDT7DA1	2	12 24	460 1840	2A	$14.50 14.95	$10.82 11.15	$ 9.21 9.49
JDT15DB1	4	6 12 24	115 460 1840	4A	17.85 17.85 17.85	13.32 13.32 13.32	11.33 11.33 11.33
JDT21DC1	6	12 24	400 1600	6A	21.30 21.30	15.89 15.89	13.53 13.53
JDT27DD1	8	6 12 24	60 240 960	8A	26.20 26.20 26.20	19.55 19.55 19.55	16.64 16.64 16.64

JRE LOW PROFILE DRY REED RELAYS

Relays have a mounted height of .360" allowing board spacing of 0.6". Terminals are on .1" grid. Molded epoxy package. Each reed contact will switch a load of 10 watts, 200 VDC or 10 VA, 140 VAC. Max. contact rating is 500 mADC and 350 mAAC.

P & B Number	No. Cav-ities	Nom. V	Res. Ohms	Contact Arrange-ment	Net Each, Lots of		
					1-24	25-49	50-74
JRE1DA1	1	5 6 12 15 24	200 200 1264 1264 5056	1A	$ 7.46 7.46 7.56 7.56 8.61	$ 6.71 6.71 6.80 6.80 7.75	$ 6.34 6.34 6.43 6.43 7.32
JRE2DB1	2	5 12 24	210 880 3600	1B	9.56 9.66 10.08	8.60 8.69 9.07	8.13 8.21 8.57
JRE7DB1	2	5 12 24	118 555 2250	2A	9.03 9.24 9.35	8.13 8.32 8.42	7.68 7.85 7.95
JRE50DC1	3	5 12 24	52 330 1320	1A + 1B	11.24 11.45 11.55	10.12 10.31 10.40	9.55 9.73 9.82

MINIATURE OPEN STYLE DRY REED RELAYS

JRC SERIES UL RECOGNIZED

PC terminals arranged on 0.100" x 1.00" grid layout. Rhodium contacts rated 10 watts max. 0.5 amp max. and 125 V max. for DC resistive loads. Operate speed of 1 msec typ. including bounce for pick-up; 0.05 msec for drop-out. Contact protection is recommended to assure long operating life. **Size:** 1.00" l. x .360" h. max. Wt., 0.3 to 1.0 oz. approx.

P & B No.•	Cavity		Coil		Contact Arrange-ment	Net Ea., Lots of*		
	No.	Width, In.	Nom. V	Resis. Ohms		1-24	25-49	50-74
JRC1DA1	1	.375	6 12 24	240 960 3840	1A 1A 1A	$10.24 10.24 10.24	$ 9.22 9.22 9.22	$ 8.70 8.70 8.70
JRC2DB1	2	.460	12 24	625 2500	1B 1B	12.65 12.65	11.39 11.39	10.75 10.75
JRC7DB1	2	.460	12 24	625 2500	2A 2A	12.44 12.44	11.20 11.20	10.57 10.57
JRC15DD1	4	660	12 24	320 1280	4A 4A	17.06 17.06	15.35 15.35	14.50 14.50
JRC50DD1	4	660	12 24	320 1280	1A + 1B 1A + 1B	14.44 14.44	13.00 13.00	12.27 12.27

•Specify coil voltage when ordering.

JR AND JRM SERIES DRY REED RELAYS

Fast response, reliable performance, high sensitivity and long life are characteristic of JR standard and JRM miniature relays. Specially suited for data processing applications, computer equipment, logic circuitry and various other sophisticated control circuits. Both JR and JRM relays have reed switches with either Form A (SPST-NO) or Form C (SPDT) contact configuration. Biasing with a permanent magnet changes Form A to a Form B (SPST-NC); arrangement requires that coil polarity be observed. Combining one Form A with one Form B results in a single Form C (SPDT) break-before-make. A "true" Form C (SPDT) uses a reed switch with two stationary and one movable contact (movable contact is normally closed until the coil is energized). **Size:** 2.718" l. × 0.656" h. max. (JR); 1.125" l. × 0.468" h. max. (JRM).

JR STANDARD SERIES				JRM MINIATURE SERIES			
Cavity		Coil Power/ Capsule	Wt., Oz.	Cavity		Coil Power/ Capsule	Wt., Oz.
No.	Width, Inches			No.	Width, Inches		
1	.687	240 mW	1.5	1	.437	180 mW	.366
2	.890	360 mW	2.0	2	.562	275 mW	395
3	1.094	720 mW	2.5	3	.703	420 mW	.530
4	1.297	960 mW	3.0	4	.813	540 mW	.620
5	1.516	1.5 W	3.5	5	.968	720 mW	.781

JR STANDARD SERIES

P&B No.	No. Cav-ities	Coil		Contacts		Net Each, Lots of*		
		Nom. V	Res. Ohms	Arrange-ment	Rat-ing	1-9	10-24	25-99
JR1000	1	6	150	1A	15 W	$ 9.50	$ 7.09	$ 6.03
UR1001	2	6	100	2A	15 W	12.71	9.48	8.07
JR1020	1	6	150	1A	50 W	11.81	8.81	7.50
JR1040	1	6	150	1C□	10 W	19.64	14.65	12.47
JR1041	2	6	100	2C□	10 W	21.16	15.79	13.44
JR1005	1	12	600	1A	15 W	9.92	7.40	6.30
JR1006	2	12	400	2A	15 W	12.76	9.52	8.10
JR1008	4	12	150	4A	15 W	18.48	13.79	11.73
JR1025	1	12	600	1A	50 W	12.18	9.09	7.73
JR1045	1	12	600	1C□	10 W	19.64	14.65	12.47
JR1046	2	12	400	2C□	10 W	25.83	19.27	16.40
JR1063	2	12	400	1B	15 W	12.55	9.36	7.97
JR1086	3	12	200	1A + 1B	15 W	19.06	14.22	12.10
JR1010	1	24	2400	1A	15 W	10.66	7.95	6.77
JR1011	2	24	1600	2A	15 W	13.34	9.95	8.47
JR1013	4	24	600	4A	15 W	18.95	14.14	12.03
JR1030	1	24	2400	1A	50 W	13.02	9.71	8.27
JR1031	2	24	1600	2A	50 W	18.53	13.82	11.77
JR1050	1	24	2400	1C□	10 W	19.58	14.61	12.43
JR1051	2	24	1600	2C□	10 W	21.79	16.26	13.84
JR1066	2	24	1600	1B	15 W	13.13	9.79	8.34
JR1088	3	24	800	1A + 1B	15 W	19.01	14.18	12.07

□True Form C.

JRM MINIATURE SERIES

P&B No.	No. Cav-ities	Coil		Contacts		Net Each, Lots of*		
		Nom. V	Res. Ohms	Arrange-ment	Rat-ing	1-9	10-24	25-99
JRM1000	1	6	200	1A	10 W	$ 9.50	$ 7.09	$ 6.03
JRM1001	2	6	130	2A	10 W	13.13	9.79	8.34
JRM1036	2	6	130	1B	10 W	12.02	8.97	7.63
JRM1048	3	6	86	1A + 1B	10 W	15.02	11.20	9.54
JRM1006	1	12	800	1A	10 W	9.56	7.13	6.07
JRM1007	2	12	520	2A	10 W	13.13	9.79	8.34
JRM1009	4	12	268	4A	10 W	20.79	15.51	13.20
JRM1040	2	12	520	1B	10 W	12.08	9.01	7.67
JRM1041	3	12	344	2B	10 W	15.75	11.75	10.00
JRM1050	3	12	344	1A + 1B	10 W	15.12	11.28	9.60
JRM1051	5	12	200	2A + 2B	10 W	23.73	17.70	15.07
JRM1012	1	24	3200	1A	10 W	10.40	7.76	6.60
JRM1013	2	24	2080	2A	10 W	13.49	10.06	8.57
JRM1015	4	24	1072	4A	10 W	21.00	15.67	13.34
JRM1044	2	24	2080	1B	10 W	12.18	9.09	7.73
JRM1045	3	24	1376	2B	10 W	16.01	11.94	10.17
JRM1052	3	24	1376	1A + 1B	10 W	15.23	11.36	9.67
JRM1053	5	24	800	2A + 2B	10 W	23.73	17.70	15.07

JRL SERIES DRY REED LATCHING RELAYS

Reliable bi-stable relays designed for memory work. Single-wound coils switch contacts on polarity reversal. Needs no coil current to maintain contact in either position. Can be mounted on PC boards in any position; not position sensitive. **Contact Arrangement:** 1 Form A and 2 Form A rated 15 watts resistive. **Operate Time:** 1.0 msec at 25° C including bounce. **Size:** Same as JR standard series above. Weight, same as JR standard series above.

P&B No.	No. Cav-ities	Coil		Contacts		Net Each, Lots of*		
		Nom. VDC	Res. Ohms	Arrange-ment	Rat-ing	1-9	10-24	25-99
JRL1000	2	6	400	1A	15 W	$13.81	$10.30	$ 8.77
JRL1001	2	12	1600	1A	15 W	14.28	10.65	9.07
JRL1002	2	24	6400	1A	15 W	14.86	11.09	9.44
JRL1013	3	12	1200	2A	15 W	18.06	13.47	11.47

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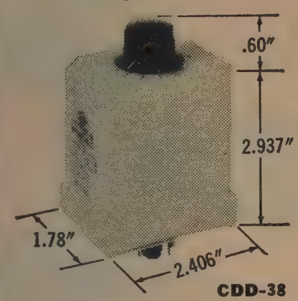
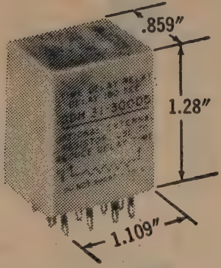
SOLID STATE TIME DELAY RELAYS

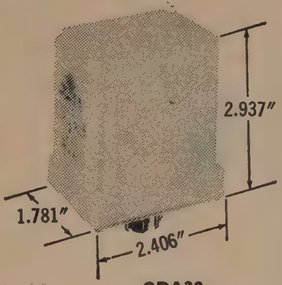


CDD-38

CD-21



CD-31



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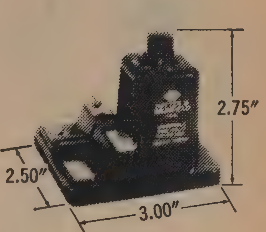
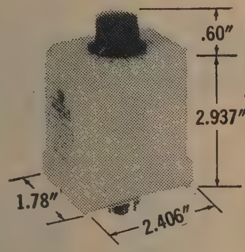


CD-45

CD Series: The CD series offers an unusually wide selection of operational configurations, all with accurate time delays, fast reset time and excellent repeatability. It is available in two types: Knob-adjustable in two versions, one with a relay in the same enclosure as the solid state unit, the other with an auxiliary relay. A second type is adjustable with an external resistor. **Tolerance:** ±5%. For AC units, add ±½ cycle 60 Hz. **Delta Time:** ±5%. For AC units, add 1 cycle 60 Hz. **Repeatability:** ±1% for 38 style. All others ±2%. For AC units, add 1 cycle 60 Hz. **Oper. Temp. Range:** −40° C to +55° C. **Release Time:** 45 msec. typ.; 60 msec. max. **Recycle Time:** Less than 60 msec. for CD-38 units; 2 sec. for others. **Timing Cycle Interrupt Transfer:** None.

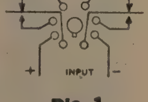


CG-38

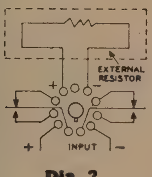
CG Series: CG relays feature a C/MOS IC controlling a DPDT relay with 10 amp contacts. The time delay is not normally affected by voltage transients. **Repeatability:** AC, ±0.1%; DC, ±0.05%. **Tolerance:** +10% −0% of max. specified at high end of dial scale; +0% −10% at low end. **Delta Time:** ±2%. **Oper. Temp. Range:** −10° C to +55° C. **Release Time:** 30 msec. typ.; 45 msec. max. **Recycle Time:** AC, 60 msec. max.; DC, 45 msec. max. **Timing Cycle Interrupt Transfer:** None. **Weight:** Approx. 8 ozs.

P & B Number	Delay Seconds	Method of Control	Input Volts	Notes	Dia. No.	Net Each, Lots of★ 1-9	10-24	25-49
DELAY ON OPERATE								
CDA38-70012	1.0	Fixed	120 VAC	a	1	$61.40	$58.33	$55.26
CDB21-70001	1.8–180	Knob	120 VAC	b	4	58.85	55.91	52.97
CDB21-70003	0.1–10	Knob	120 VAC	b	4	58.85	55.91	52.97
CDB38-30001	0.1–10	Knob	24 VAC	a	1	66.45	63.13	59.81
CDB38-30002	0.6–6	Knob	24 VAC	a	1	66.45	63.13	59.81
CDB38-70001	0.1–1	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB38-70002	0.1–5	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB38-70003	0.1–10	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB38-70004	0.6–60	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB38-70005	1.8–180	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB38-70006	0.3–30	Knob	120 VAC	a	1	66.45	63.13	59.81
CDB45-70002	0.6–60	Knob	120 VAC	c	6	62.85	59.71	56.57
CDD21-30001	1.8–180	Knob	24 VDC	d	3	59.30	56.34	53.37
CDD21-30003	0.1–10	Knob	24 VDC	d	3	59.30	56.34	53.37
CDD38-30003	0.1–10	Knob	24 VDC	a	1	64.15	60.94	57.74
CDD38-30004	0.6–60	Knob	24 VDC	a	1	64.15	60.94	57.74
CDD38-30005	1.8–180	Knob	24 VDC	a	1	64.15	60.94	57.74
CDD38-40002	0.6–60	Knob	48 VDC	a	1	64.15	60.94	57.74
CDF31-70003	10 max.	Resistor	120 VAC	e. f	7	70.85	67.31	63.77
CDF38-70001	1 max.	Resistor	120 VAC	a, g	2	74.20	70.49	66.78
CDF38-70002	5 max.	Resistor	120 VAC	a, h	2	74.20	70.49	66.78
CDF38-70003	10 max.	Resistor	120 VAC	a, f	2	74.20	70.49	66.78
CDH31-30005	180 max.	Resistor	24 VDC	i, j	8	75.40	71.63	67.86
DELAY ON RELEASE								
CDB38-70012	0.6–60	Knob	120 VAC	a	5	$79.35	$75.38	$71.42
CDB38-70014	0.1–10	Knob	120 VAC	a	5	79.35	75.38	71.42
CDB38-70015	1.8–180	Knob	120 VAC	a	5	79.35	75.38	71.42
CDD38-30008	1.8–180	Knob	24 VDC	a	5	76.15	72.34	68.54
CDD38-30012	0.6–60	Knob	24 VDC	a	5	76.15	72.34	68.54
CDD38-30014	0.1–10	Knob	24 VDC	a	5	76.15	72.34	68.54
CDA38-70025	1.0	Fixed	120 VAC	a	5	68.20	64.79	61.38
CDB38-70016	0.1–1	Knob	120 VAC	a	5	79.35	75.38	71.42
CDB38-70091	0.1–5	Knob	120 VAC	a	5	79.35	75.38	71.42
DELAY ON OPERATE								
CGB38-70010M	1–10*	Knob	120 VAC	a	1	$79.20	$75.24	$71.28
CGB38-70050M	5–50*	Knob	120 VAC	a	1	79.20	75.24	71.28
CGB38-70100M	10–100*	Knob	120 VAC	a	1	79.20	75.24	71.28
CGD38-30010M	1–10*	Knob	24 VDC	a	1	76.90	73.06	69.21
CGD38-30050M	5–50*	Knob	24 VDC	a	1	76.90	73.06	69.21
CGD38-30100M	10–100*	Knob	24 VDC	a	1	76.90	73.06	69.21
INTERVAL ON								
CGB38-79010M	1–10*	Knob	120 VAC	a	1	$79.20	$75.24	$71.28
CGB38-79050M	5–50*	Knob	120 VAC	a	1	79.20	75.24	71.28
CGB38-79100M	10–100*	Knob	120 VAC	a	1	79.20	75.24	71.28
CGD38-39010M	1–10*	Knob	24 VDC	a	1	76.90	73.06	69.21
CGD38-39050M	5–50*	Knob	24 VDC	a	1	76.90	73.06	69.21
CGD38-39100M	10–100*	Knob	24 VDC	a	1	76.90	73.06	69.21
DELAY ON RELEASE								
CGB38-78010M	1–10*	Knob	120 VAC	a	....	$83.20	$79.04	$74.88

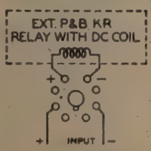
a. Has internal relay with DPDT contacts rated 10 A, 120 VAC. **b.** Use with P & B KRP5AG—120 VAC, KRP11AG—120 VAC or KRP14AG—120 VAC relay. **c.** Use with P & B PRD11AY—120 VAC relay. **d.** Use with P & B KRP5DG—24 VDC, KRP11DG—24 VDC or KRP14DG—24 VDC relay. **e.** Use with P & B KHP17A11—120 VAC relay. **f.** Use 400K resistor for ½ max. time. **g.** Use 33K resistor for ½ max. time. **h.** Use 200K resistor for ½ max. time. **i.** Use 1.6 megohm resistor for ½ max. time. **j.** Use with P & B KHP17D11—24 VDC relay. *Minutes.



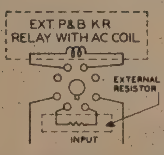
Dia. 1



Dia. 2



Dia. 3



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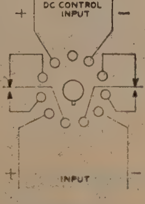
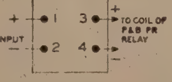
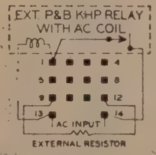


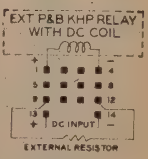
Dia. 5



Dia. 6



Dia. 7

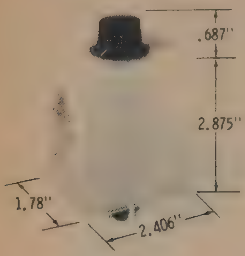


Dia. 8

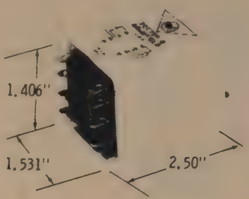
★LARGER QUANTITY PRICES ON REQUEST. PRICES SHOWN ARE FOR REFERENCE ONLY

SEE ANOTHER P & B PAGE FOR ACCESSORIES

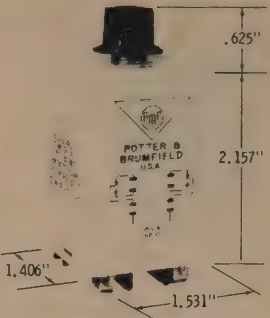
SOLID STATE TIME DELAY RELAYS



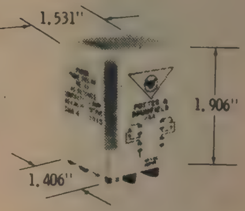
CH-38



CL-42 CU-42



CL-51 CU-51



CU-41 CL-41

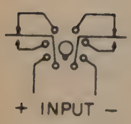
CH Series: CH relays are intended for industrial applications where economy is more important than performance. It is available as a knob-adjustable type with a relay in the same case or as a fixed time delay that is set at the factory. The CH series is available for time delay on operate or on release. **Tolerance:** Knob adj. units, −0 +20% at high end of dial scale/min. or less at low end; others, ±5%. **Delta Time:** ±10%. For AC units, add 1 cycle 60 Hz. **Repeatability:** ±2%. For AC units, add 1 cycle 60 Hz. **Oper. Temp. Range:** −10°C to +55°C. **Release Time:** 125 msec. **Recycle Time:** 125 msec. **Timing Cycle Interrupt Transfer:** Contacts may transfer momentarily if timing cycle is interrupted. **Contacts:** DPDT, 10 A, 120 VAC.

CL Series: For applications where false operation cannot be tolerated. Designed for delay on operate. Includes internally mounted DPDT 10-amp relay in case. Plug-in terminals. **Tolerance:** Knob adj. types, −0 +20% of max. at high end of dial scale/min. or less at low end; res. adj. types, ±10% at high end/min. or less at low end; fixed types, ±5%. **Repeatability:** ±3%. For AC units, add 1 cycle 60 Hz. **Oper. Temp. Range:** −10°C to +40°C. **Release Time:** 100 msec. **Recycle Time:** 100 msec. **Timing Cycle Interrupt Transfer:** None, UL recognized.

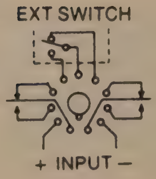
CU Series: Available in three types: fixed, resistor adjustable or knob adjustable. Has internal DPDT 10-amp relay. **Tolerance:** Knob adj. types, −0 +20% of max. at high end of dial scale/min. or less at low end; res. adj. types, ±10%. For AC units, add ½ cycle 60 Hz. **Repeatability:** ±3%. For AC units, add 1 cycle 60 Hz. **Oper. Temp. Range:** −10°C to +40°C. **Contact Rating:** DPDT, 10 A, 120 VAC. **Release Time:** 150 msec. **Recycle Time:** 150 msec. **Timing Cycle Interrupt Transfer:** Contacts may transfer momentarily if timing cycle is interrupted. UL recognized.

P & B Number	Delay Seconds	Method of Control	Input Volts	Notes	Dia. No.	Net Each, Lots of* 1-9	10-24	25-49
DELAY ON OPERATE								
CHA38-70001	10	Fixed	120 VAC●	a	1	$43.79	$41.60	$39.41
CHB38-30001	1–10	Knob	24 VAC	a	1	40.22	38.21	36.20
CHB38-30003	1–180	Knob	24 VAC	a	1	40.22	38.21	36.20
CHB38-70001	1–10	Knob	120 VAC●	a	1	39.27	37.31	35.34
CHB38-70002	1–60	Knob	120 VAC●	a	1	39.27	37.31	35.34
CHB38-70003	1.8–180	Knob	120 VAC●	a	1	39.27	37.31	35.34
CHB38-80001	1–10	Knob	240 VAC●	a	1	44.99	42.74	40.49
CHD38-30001	1–10	Knob	24 VDC	a	1	47.72	45.33	42.95
CHD38-30003	1–180	Knob	24 VDC	a	1	47.72	45.33	42.95
DELAY ON RELEASE								
CHB38-30011	1–10	Knob	24 VAC	a, b	2	$60.17	$57.16	$54.15
CHB38-70011	1–10	Knob	120 VAC●	a, b	2	57.70	54.82	51.93
CHB38-70012	1–60	Knob	120 VAC●	a, b	2	57.70	54.82	51.93
CHB38-70013	1–180	Knob	120 VAC●	a, b	2	57.70	54.82	51.93
CHD38-30011	1–10	Knob	24 VDC	a, b	2	69.09	65.64	62.18
CHD38-30013	1–180	Knob	24 VDC	a, b	2	69.09	65.64	62.18
INTERVAL ON								
CHB38-70021	1–10	Knob	120 VAC●	a	1	$54.23	$51.52	$48.81
CHB38-70022	1–60	Knob	120 VAC●	a	1	54.23	51.52	48.81
CHB38-70023	1–180	Knob	120 VAC●	a	1	54.23	51.52	48.81
CHD38-30021	1–10	Knob	24 VDC	a	1	65.78	62.49	59.20
DELAY ON OPERATE								
CLA41-70010	10	Fixed	120 VAC	a	3	$36.70	$34.87	$33.03
CLB51-30010	0.1–10	Knob	24 VAC	a	3	45.62	43.34	41.06
CLB51-70010	0.1–10	Knob	120 VAC	a	3	43.58	41.40	39.22
CLB51-70030	0.3–30	Knob	120 VAC	a	3	49.82	47.33	44.84
CLB51-70120	1.2–120	Knob	120 VAC	a	3	49.56	47.08	44.60
CLF41-70010	0.1–10	Resistor	120 VAC	c	4	40.90	38.86	36.81
CLF42-70010	0.1–10	Resistor	120 VAC	c	4	40.69	38.66	36.62
CLH41-30010	0.1–10	Resistor	24 VDC	d	4	38.01	36.11	34.21
DELAY ON OPERATE								
CUA41-30010	10	Fixed	24 VAC	a	3	$32.29	$30.68	$29.06
CUA41-70001	1	Fixed	120 VAC	a	3	32.29	30.68	29.06
CUA41-70003	1–30	Knob	120 VAC	a	3	32.34	30.72	29.11
CUA41-70005	5	Fixed	120 VAC	a	3	32.39	30.77	29.15
CUA41-70010	10	Fixed	120 VAC	a	3	32.39	30.77	29.15
CUA41-70120	120	Fixed	120 VAC	a	3	32.39	30.77	29.15
CUA42-30010	10	Fixed	24 VAC	a	3	32.39	30.77	29.15
CUA42-70010	10	Fixed	120 VAC	a	3	32.39	30.77	29.15
CUA42-70120	120	Fixed	120 VAC	a	3	32.39	30.77	29.15
CUB51-70010	1–10	Knob	120 VAC	a	3	42.00	39.90	37.80
CUB51-70030	1–30	Knob	120 VAC	a	3	42.00	39.90	37.80
CUB51-70060	1–60	Knob	120 VAC	a	3	42.00	39.90	37.80
CUB51-70120	1–120	Knob	120 VAC	a	3	42.00	39.90	37.80
CUC41-30010	10	Fixed	24 VDC	a	3	32.76	31.12	29.48
CUC41-30120	120	Fixed	24 VDC	a	3	32.97	31.32	29.67
CUF41-30010	1–10	Resistor	24 VAC	c	4	35.54	33.76	31.99
CUF41-70010	1–10	Resistor	120 VAC	c	4	36.44	34.62	32.80
CUF41-70030	1–30	Resistor	120 VAC	e	4	36.44	34.62	32.80
CUF41-70120	1–120	Resistor	120 VAC	f	4	36.44	34.62	32.80
CUF42-30010	1–10	Resistor	24 VAC	c	4	35.44	33.67	31.90
CUF42-70010	1–10	Resistor	120 VAC	c	4	36.44	34.62	32.80
CUF42-70120	1–120	Resistor	120 VAC	f	4	36.44	34.62	32.80
CUH41-30010	1–10	Resistor	24 VDC	d	4	35.70	33.92	32.13
CUH41-30120	1–120	Resistor	24 VDC	g	4	35.70	33.92	32.13
CUH42-30010	1–10	Resistor	24 VDC	d	4	35.65	33.87	32.09
CUH42-30120	1–120	Resistor	24 VDC	g	4	35.65	33.87	32.09

a. Has internal relay with DPDT contacts rated 10 A, 120 VAC, except CU series, 10 A, 250 VAC. **b.** External switch or relay required. **c.** Use 200K for max time. **d.** Use 160K for max. time. **e.** Use 600K for max. time. **f.** Use 2.4 megohm for max time. **g.** Use 2 megohm for max. time. ●Not recommended for continuous duty.

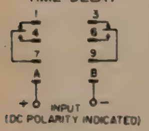


Dia. 1



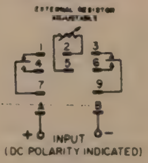
Dia. 2

FIXED & KNOB ADJUSTABLE TIME DELAY



Dia. 3

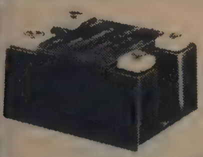
EXTERNAL RESISTOR ADJUSTABLE



Dia. 4

PRICES SHOWN ARE FOR REFERENCE ONLY

*LARGER QUANTITY PRICES ON REQUEST (SEE ANOTHER P & B PAGE FOR ACCESSORIES)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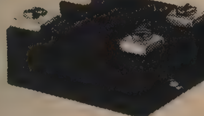
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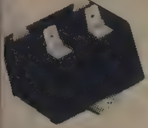

EOT1DC

EOT1DB

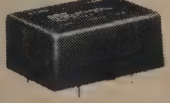
EOM-EOT SOLID-STATE RELAYS

P & B Number•	Input DC	Input mA	Output Volts	Output Amps*	Net Each, Lots of 1-9	10-24	25-49	50-Up
EOM1DA22	3–32	15	120	2.5(3.5)	$14.05	$12.65	$11.38	$10.54
EOM1DA22	5, 12, 24	15	120	2.5(3.5)	11.95	10.58	9.52	8.81
EOM1DA42	3–32	15	120	5(10)	15.45	13.91	12.51	11.28
EOM1DA42	5, 12, 24	15	120	5(10)	13.60	12.24	11.02	9.93
EOM1DA72	3–32	15	120	7(25)	17.70	15.93	14.34	12.92
EOM1DA72	5, 12, 24	15	120	7(25)	15.60	14.04	12.64	11.39
EOT1DB22	3–32	15	120	2(4)	16.50	14.85	13.37	12.05
EOT1DB42	3–32	15	120	4(8)	19.15	17.24	15.51	13.98
EOT1DB52	3–32	15	120	5(12)	19.35	17.42	15.67	14.13
EOT1DB72	3–32	15	120	7(20)	21.90	19.71	17.74	15.99
EOT1DC22	3–32	15	120	2(4)	16.50	14.85	13.37	12.05
EOT1DC72	3–32	15	120	7(20)	21.85	19.67	17.70	15.95
EOT1DC74	3–32	15	240	7(20)	24.35	21.92	19.72	17.78
EOT1DC22	5	11	120	2(4)	14.30	12.87	11.58	10.44
EOT1DC42	5	11	120	4(8)	16.90	15.21	13.69	12.34
EOT1DC72	5	11	120	7(20)	19.70	17.73	15.96	14.38
EOT1DC74	5	11	240	7(20)	22.15	19.94	17.94	16.17

•Specify input voltage when ordering. *First value is without heat sink; value in ( ) is with factory recommended heat sink of 10" × 10" × .125" aluminum with silicon grease.

The EOM-EOT Series feature a solid-state switch controlled and isolated by an optoelectronic coupler. Both feature zero voltage turn-on and zero current turn-off. Life expectancy is greater than 100 million operations at rated values. The EOM-EOT may be driven directly by DTL, TTL, ECL, HTL or MOS logic. The EOM has screw terminals. The EOT has .250" quick-connect terminals. Non-hermetic seal. Approx. weight: 4.5 ozs. Maximum load current derating is linear between 25°C and 55°C ambient. At 55°C, the rating is 60% of that at 25°C. UL recognized.

KUA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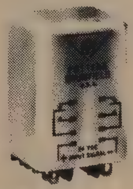
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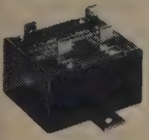
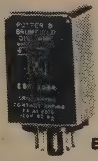

ECT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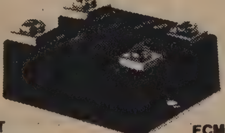

ECM

EBT SERIES SOLID STATE HYBRID RELAYS

Combines the input/output isolation of a reed relay with the inrush switching capabilities and long life of a solid state switch. EBT relays switch 7 A, 60 Hz at 25° ambient temperature with nominal load voltage of 120 V. Rated 5 A rms, 60 Hz at 55°C ambient. Min. operating current, 200 mA, 60 Hz. Expected life, greater than 10 million bounce-free operations. Operate time: 2 msec. max. Typical turn-off is at first zero-crossover. Typical "closed contact" voltage drop, 1.1 V. Octal terminals for standard 8-pin socket. Weight, approximately 5.5 oz. UL recognized.

P & B No.•	Contacts	Nominal Voltage†	Net Each, Lots of 1-9	10-24	25-49	50-Up
EBT1DA52	SPST	12, 24	$15.41	$13.87	$12.48	$11.25

•Specify coil voltage when ordering. †VDC.

KUA SOLID STATE AMPLIFIER-DRIVEN RELAY

Amplifier driven KUP relay operates from low power signals associated with IC circuits. Input sensitivity of 60 µW. Control signal of 2.4 VDC at 25 µA approx. operates relay at specified voltage. Control signal 30 VDC or 1 mA max. Must release control voltage 0.5 VDC at specified supply voltage. Polarity protection. Fine silver contacts switch 5 A at 28 VDC resis. or 120 V, 60 Hz, 80% PF. Clear polycarbonate case; .187" quick-connect/solder terminals fit KU sockets. Weight, 3.5 oz. approx.

KUA5G11	SPDT	24 VDC	$19.15	$17.24	$15.51	$13.98
KUA11G11	DPDT	24 VDC	19.67	17.70	15.93	14.36

KUR SERIES SOLID STATE HYBRID RELAYS

KUR direct action impulse relays for applications requiring on-off operation or alternate energizing of two loads. Solid state flip-flop circuit precedes permanent magnet latching relay; allows relay to remain latched during complete power loss. Requires 25 msec min. pulse width; up to 1200 pulses per minute repetition rate. Fine silver contacts rated 5 amps at 28 VDC or 120 VAC, 80% PF. Terminals are .187" quick-connect/solder type and fit standard KU sockets. Yellow plastic cover. Weight, 3½ oz. approx.

KUR11D11	DPDT	24 VDC	$38.30	$34.47	$31.02	$27.96

SEE ANOTHER P & B PAGE FOR ACCESSORIES

PRICES SHOWN ARE FOR REFERENCE ONLY

EAX SERIES SOLID-STATE RELAYS

The EAX Series consists of a solid-state output switch controlled and isolated by a toroidal transformer that is driven by a pulse circuit. The series is compatible with TTL, MOS and I^2L logic. Input current is a maximum of 12 mA at all input voltages. Load current is 1.2 amp, 120 VAC, 50/60 Hz, at 25°C and is derated linearily to +55°C. Operate time is 0.5 msec. max.; typical turn-off is at first zero-crossover. **Size:** 1.74" × 1.44" × 0.8". **Weight:** Approx. 1 oz. UL recognized.

P & B Number•	Input DC Volts	Contact AC Volts	Net Each, Lots of 1-9	10-24	25-49	50-99
EAX1DA12	5	120	$16.10	$14.49	$13.04	$11.75
EAX1DA12	12	120	16.10	14.49	13.04	11.75
EAX1DA12	24	120	16.10	14.49	13.04	11.75

•Specify coil voltage when ordering.

ECM SOLID STATE HYBRID RELAYS

The ECM Series consists of a solid state switch, controlled and isolated by an internal reed relay. Operate directly from logic ICs such as CMOS, TTL, I^2L, ECL and HTL. Non-potted, screw terminal enclosure. Switches loads up to 40 amps. Max. operate time is 1 ms.; typical turn-off is at first zero crossover. Expected life rating is over 10 million operations.

ECM1DE72	5, 12, 24	120	$13.25	$11.93	$10.73	$ 9.67

ECT SOLID STATE HYBRID RELAYS

ECT series is a medium power triac controlled and isolated by a reed relay. Expected life is in excess of 10 million operations. Operate time is 2 msec max.; typical turn-off is at first zero-crossover. Contacts SPST-N.O. **Size:** 2.64" × 1.50" × 1.52". UL recognized. CSA certified.

P & B No.•	Input Volts	Input mA	Contact Amps*	Net Each, Lots of 1-9	10-24	25-49	50-99
ECT1AC22	120‡	6.2	2	$13.15	$11.84	$10.65	$ 9.60
ECT1AC42	120‡	6.2	4	15.25	13.73	12.35	11.13
ECT1AC72	120‡	6.2	7(20)	18.75	16.88	15.19	13.69
ECT1AC74	120‡	6.2	7(20)	18.50	16.65	14.99	13.51
ECT1DB44	24†	12	4(8)	11.60	10.44	9.40	8.47
ECT1DC22	5†	57	2	9.70	8.73	7.86	7.08
ECT1DC22	12†	24	2	9.70	8.73	7.86	7.08
ECT1DC22	24†	12	2	9.70	8.73	7.86	7.08
ECT1DC42	12†	24	4	11.40	10.26	9.23	8.32
ECT1DC42	24†	12	4	11.40	10.26	9.23	8.32
ECT1DC52	5†	57	5(12)	12.65	11.39	10.25	9.23
ECT1DC72	5†	57	7(20)	14.85	13.37	12.03	10.84
ECT1DC72	12†	24	7(20)	14.85	13.37	12.03	10.84
ECT1DC72	24†	12	7(20)	14.85	13.37	12.03	10.84
ECT1DC74	5†	89	7(20)	14.90	13.41	12.07	10.88
ECT1DC74	12†	37.5	7(20)	14.90	13.41	12.07	10.88
ECT1DC74	24†	18.8	7(20)	14.90	13.41	12.07	10.88

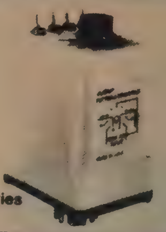
•Specify input voltage when ordering. *First value is without heat sink; value in ( ) is with factory recommended heat sink of 10" × 10" × .062" aluminum with silicon grease. †VDC. ‡VAC.

SOLID STATE TIME DELAY RELAYS

CK-38

CK-38

CJ Series


CW Series

CR Series

CK Series: Available in three types: fixed time, resistor adjustable, and knob adjustable for AC or DC operation. Will not false operate and will time as low as 0.1 sec. All include a DPDT relay rated 10 amps. Has octal-type plug-in terminals. **Tolerance.** Knob adj. types, −0 +20% of max. at high end of dial scale/min. or less at low end; others, ±5%. For AC units, add ½ cycle 60 Hz. **Delta Time:** ±10%. For AC units, add 1 cycle 60 Hz. **Repeatability:** ±2%. For AC units, add 1 cycle 60 Hz. **Oper. Temp. Range:** −10°C to +55°C. **Contact Rating:** 10 A, 120 VAC. **Release Time:** 60 msec. **Recycle Time:** 60 msec. **Timing Cycle Interrupt Transfer:** None.

CJ Series: Time delay dry reed relays available. **Tolerance:** Fixed, ±5%; res. adj., ±10% of max. at high end of dial scale/min. or less at low end. **Delta Time:** ±10%. **Repeatability:** ±2%. **Oper. Temp. Range:** −10°C to +55°C. **Release Time:** 50 msec. **Recycle Time:** 50 msec. **Timing Cycle Interrupt Transfer:** None.

CR Series: The CR series recycle timer has two control knobs for adjusting ON and OFF delays. The recycling sequence is initiated by applying power to the terminals. When the first preset delay is complete, the normally OFF contacts transfer to ON, at which time the ON delay begins. If power is removed during any part of the operate cycle, the relay will revert to its OFF state (contacts open). **Tolerance:** −0 +20% at max. time/min. or less at min. time. **Delta Time:** ±10%. **Repeatability:** ±2%. **Oper. Temp. Range:** −10°C to +55°C. **Contact Rating:** 10 A, 120 VAC. **Release Time:** 60 msec.

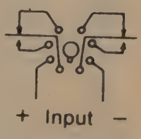
CW Series: Programmable time delay relays feature a CMOS IC with delay on operate, delay on release, and interval timing functions. Timing controlled by four toggle switches on top of unit's case; one selects timing function; one selects seconds or minutes; other two select timing range. Actual timing controlled by a knob on top of case. Internal 10-amp DPDT relay controls switching. An LED indicates when unit is on. Plug-in, octal-type terminals. **Tolerance:** +10%, −0% of maximum specified at high end; +0%, −20% of maximum specified at low end; not less than ±16 msec. for AC units; ±10 msec. for DC units. **Delta Time:** ±5% max. **Repeatability:** (Including first cycle of operation): AC, ±0.5% max., but not less than ±16 msec.; DC, ±0.1% max., but not less than ±3 msec. **Temp. Range:** −10°C to +55°C. **Contact Rating:** 10 amps at 120/240 VAC or 30 VDC. **Release Time:** 50 msec. max. **Recycle Time:** 75 msec. max. **Timing Cycle Interrupt Transfer:** None. **Weight:** Approx. 8 oz. **Time Delay Ranges:** 0.5-5, 1-10, 5-50 and 10-100 min. or sec. (all models). **Method of Control:** Toggle switches and adjustable control.

P & B Number	Delay Seconds	Method of Control	Input Volts	Notes	Dia. No.	Net Each, Lots of* 1-9	10-24	25-49
DELAY ON OPERATE								
CKA38-70010	10	Fixed	120 VAC	a	1	$41.21	$39.15	$37.09
CKB38-30010	0.1–10	Knob	24 VAC	a	1	42.58	40.45	38.32
CKB38-70010	0.1–10	Knob	120 VAC	a	1	42.58	40.45	38.32
CKB38-70060	0.6–60	Knob	120 VAC	a	1	44.00	41.80	39.60
CKB38-70120	1.2–120	Knob	120 VAC	a	1	49.09	46.64	44.18
CKB38-70180	1.8–180	Knob	120 VAC	a	1	62.84	59.70	56.56
CKD38-20010	0.1–10	Knob	12 VDC	a	1	40.90	38.86	36.81
CKF38-70010	0.1–10	Resistor	120 VAC	a, b	2	40.01	38.01	36.01
CKH38-30010	0.1–10	Resistor	24 VDC	a, b	2	40.06	38.06	36.05
CJH01-20010	0.1–10	Resistor	12 VDC	b	4	43.63	41.45	39.27
CJH01-20120	1–120	Resistor	12 VDC	c	4	49.77	47.28	44.79
CJH01-30010	0.1–10	Resistor	24 VDC	b	4	43.63	41.45	39.27
CJH01-30120	1–120	Resistor	24 VDC	c	4	49.77	47.28	44.79
CJH03-20010	0.1–10	Resistor	12 VDC	b	5	47.93	45.53	43.14
CJH03-30010	0.1–10	Resistor	24 VDC	b	5	47.99	45.59	43.19
DELAY ON RELEASE								
CKB38-78010	0.1–10	Knob	120 VAC	a	3	$53.81	$51.12	$48.43
DELAY ON OPERATE AND RELEASE								
CRB48-30180	1.8–180	Knob	24 VAC	a	1	$133.88	$127.19	$120.49
CRB48-70010	0.1–10	Knob	120 VAC	a	1	85.58	81.30	77.02
CRB48-70060	0.6–60	Knob	120 VAC	a	1	95.81	91.02	86.23
CRB48-70180	1.8–180	Knob	120 VAC	a	1	115.29	109.53	103.76
CRD48-30180	1.8–180	Knob	24 VDC	a	1	110.36	104.84	99.32
DELAY ON DROPOUT*								
CKB38-37010	0.1–10	Knob	24 VAC	d	1	$69.20	$65.74	$62.28
CKB38-37060	0.6–60	Knob	24 VAC	d	1	69.20	65.74	62.28
CKB38-77010	0.1–10	Knob	120 VAC	d	1	69.20	65.74	62.28
CKB38-77060	0.6–60	Knob	120 VAC	d	1	69.20	65.74	62.28

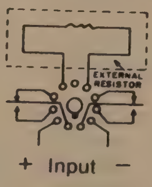
a. Has internal relay with DPDT contacts rated at 10 A, 120 VAC. **b.** Use 750K resistor for max. time. **c.** Use 1.8 megohm resistor for max. time. **d.** The relay operates immediately upon application of input voltage; timing begins when input voltage is removed; when timing is complete, relay will de-energize; reset occurs when input voltage is reapplied.

PROGRAMMABLE DELAY ON OPERATE AND RELEASE

P & B Number	Input Volts	Diag. No.	Net Each
CWB-38-36000	24 VAC	6	$89.25
CWB-38-76000	120 VAC	6	89.25
CWB-38-86000	240 VAC	6	97.25
CWD-38-26000	12 VDC	6	89.25
CWD-38-36000	24 VDC	6	89.25
CWD-38-46000	48 VDC	6	89.25
CWD-38-66000	110 VDC	6	89.25



Dia. 1



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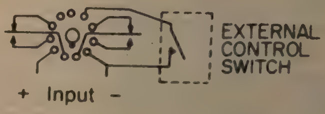

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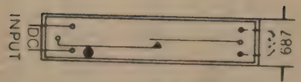
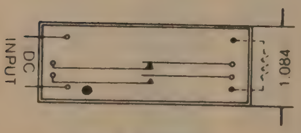
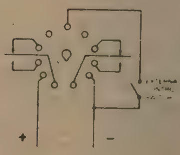


Dia. 4 N/O RED DOT



Dia. 5 RED DOT

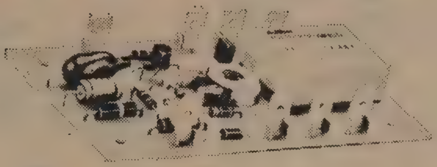


Dia. 6

*LARGER QUANTITY DISCOUNTS AVAILABLE. PRICES SHOWN ARE FOR REFERENCE ONLY
SEE ANOTHER P & B PAGE FOR ACCESSORIES

SOLID STATE TIME DELAY RELAYS

R12, R14, R15



R16

R52

R12 Series: Small size DPDT with 5 amp contacts and silicon transistor circuitry. Delay time .1 to 120 seconds in three ranges; no false operation. Time is varied with high-resolution 15-turn potentiometer. Solder/plug-in terminals. **Tolerance:** −0% +60% of max. at high end of potentiometer; min. or less at low end. **Delta Time:** ±10%. **Repeatability:** ±3% at 25° C. **Recycle Period:** 100 msec. **Timing Cycle Interrupt Transfer:** None. **Temp. Range:** −10° C to +55° C. **Weight:** 1.7 ozs.

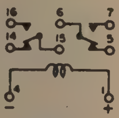
R14 Series: DC operated, fixed or externally adjustable time delay relay available in three ranges from 0.1 to 120 seconds. The coil is polarity protected. Shock rated at 15 g. operating and 30 g. mechanical.

R15 Series: AC operated fixed or externally adjustable time delay relay available in three timing ranges from 0.3 to 60 seconds. Shock rated at 15 g. operating and 30 g. mechanical. **Tolerance at 25° C:** Fixed, ±25%. **Repeatability:** ±3%. **Recycle Period:** 200 msec. **Timing Cycle Interrupt Transfer:** None. **Temp. Range:** −10° C to +55° C. **Weight:** 1.7 ozs.

R14/R15 TIMING RESISTOR

Max. Delay Time	Resistance
2 sec.	1.32 meg
10 sec.	434K
30 sec.	1.32 meg
120 sec.	1.32 meg
300 sec.	1.65 meg

For minimum time, short the external-resistor terminals together.



Dia. 1

P & B Number	Delay Seconds	Input Volts	Contacts		Dia. No.	Net Each, Lots of★		
			Arrangement	Rating▲ Typ. (max.)		1-9	10-49	50-99
DELAY ON OPERATE								
R12-2-12-X2-E1	0.1–2	12 VDC	DPDT	5	1	**$32.80**	**$29.52**	**$26.24**
R12-2-24-X2-E1	0.1–2	24 VDC	DPDT	5	1	**32.80**	**29.52**	**26.24**
R12-30-12-X2-E1	1.0–30	12 VDC	DPDT	5	1	**33.60**	**30.24**	**26.88**
R12-30-24-X2-E1	1.0–30	24 VDC	DPDT	5	1	**33.60**	**30.24**	**26.88**
R12-120-12-X2-E1	5.0–120	12 VDC	DPDT	5	1	**36.30**	**32.67**	**29.04**
R12-120-24-X2-E1	5.0–120	24 VDC	DPDT	5	1	**36.30**	**32.67**	**29.04**
R14-2A-12-X2-E1	0.1–2	12 VDC	DPDT	5	2	**29.15**	**26.24**	**23.32**
R14-2A-12-X4-E1	0.1–2	12 VDC	4PDT	5	4	**31.60**	**28.44**	**25.28**
R14-30A-24-X2-E1	0.3–30	24 VDC	DPDT	5	2	**30.45**	**27.41**	**24.36**
R14-30A-24-X4-E1	0.3–30	24 VDC	4PDT	5	4	**33.00**	**29.70**	**26.40**
R14-120A-24-X2-E1	1.0–120	24 VDC	DPDT	5	2	**31.85**	**28.67**	**25.48**
R14-120A-24-X4-E1	1.0–120	24 VDC	4PDT	5	4	**34.35**	**30.92**	**27.48**
R15-10A-24-W2-E1	0.3–10	24 VAC	DPDT	7.5	2	**40.50**	**36.45**	**32.40**
R15-30A-115-X2-E1	0.3–30	115 VAC	DPDT	5	2	**40.90**	**36.81**	**32.72**
R15-60A-115-Y2-E1	1–60	115 VAC	DPDT	2	2	**40.40**	**36.36**	**32.32**
R16-30A-24A-Y2	2.0–30	24 VAC	DPDT	2(3)	5	**23.80**	**21.42**	**19.04**
R16-30A-120A-Y2	2.0–30	120 VAC	DPDT	2(3)	5	**25.15**	**22.64**	**20.12**
R52-2B-1E1	0.2–2.0	4.5–30 VDC	SPST-NO	.35*	6	**9.15**	**8.24**	**7.32**
R52-30B-1E1	2.0–30	4.5–30 VDC	SPST-NO	.35*	6	**9.15**	**8.24**	**7.32**
R52-100B-1E1	5–100	4.5–30 VDC	SPST-NO	.35*	6	**9.90**	**8.91**	**7.92**

▲At 28 VDC or 115 VAC resistive, except R52 series, 4.5 to 30 VDC. *At 25° C, derated to .26 A at +55° C.

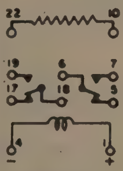
R16 Series: Available in the timing range of 2 to 30 seconds. A potentiometer is used to set the timing values. Relay and timing components are mounted on a glass epoxy circuit board having .25″ quick-connect terminals. **Tolerance:** Potentiometer adjustable. **Delta Time:** ±10%. **Repeatability:** ±3% max. **Recycle Time:** 100 msec. typical. **Oper. Temp. Range:** −10° C to +55° C. **Timing Cycle Interrupt Transfer:** Momentary for AC inputs. **Weight:** 1.5 ozs. approx.

R52 Series: Low cost, solid state timing modules can make time delay relays of all but a few of the P & B 5, 6, 12 and 24 VDC relays. R52 will conduct 350 mA at voltages from 4.5 to 30 VDC. **Tolerance:** ±25% plus that of the timing resistor. **Delta Time:** ±10%. **Repeatability:** ±3%. **Release Time:** 100 msec. **Recycle Time:** 100 msec. **Timing Cycle Interrupt Transfer:** None. **Oper. Temp. Range:** −10° C to +55° C. **Weight:** 2 ozs.

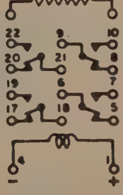
R52 TIMING RESISTOR

Max. Time Delay	Resistance
2 sec.	1.20 meg
30 sec.	1.24 meg
100 sec.	1.1 meg

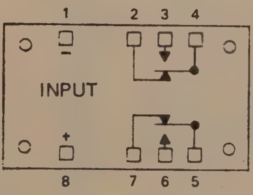
For minimum time, short the external-resistor terminals together.



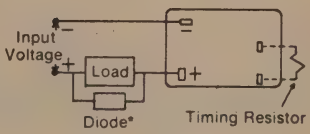
Dia. 2



Dia. 4



Dia. 5



Dia. 6

★ LARGER QUANTITY DISCOUNTS AVAILABLE. PRICES SHOWN ARE FOR REFERENCE ONLY
SEE ANOTHER P & B PAGE FOR ACCESSORIES

SOCKETS

P & B Number	For Relay	Contacts	Terminals	Net Each★
27E006	KHS, KHU, CD-31	4PDT	Solder	$1.06
27E007			Printed circuit	1.09
27E166			Screw—5A	10.19
27E043	KUP, KUMP	SPDT,	Solder—10A	1.33
27E046	in plain case	DPDT,	Printed circuit	1.58
27E067	KUA, KUL,	3PDT	.187" Q.C.—10A	2.10
27E121	KUR, CU, CL,		Screw—15A	6.66
27E396	KU, KUEP		.187" Q.C.	2.10
27E400	SDAS sensor		Solder	1.33
27E062	HP, HPS, HCM	DPDT	Solder	1.42
27E118	KNP	SPDT,	Solder	1.14
27E119		DPDT, 3PDT	Printed Circuit	1.14
27E122	EBA, EBT†	8-pin	Screw—10A	4.20
27E123	CW time delay	11-pin	Screw—10A	6.29
27E125	R10, R10S	DPDT	Solder□	.88
27E701		DPDT	Solder□■	1.37
27E126		4PDT	Solder□	1.11
27E702		4PDT	Solder□■	1.99
27E127		6PDT	Solder□	1.42
27E703		6PDT	Solder□■	2.62
27E211		8PDT	Solder□	2.19
27E704		8PDT	Solder□■	3.71
27E162		DPDT	Solder	.88
27E705		DPDT	Solder■	1.37
27E163		4PDT	Solder	1.11
27E706		4PDT	Solder■	1.99
27E164		6PDT	Solder	1.42
27E128		DPDT	Printed circuit□	.88
27E709		DPDT	Printed circuit□■	1.37
27E129		4PDT	Printed circuit□	1.11
27E710		4PDT	Printed circuit□■	1.99
27E130		6PDT	Printed circuit□	1.42
27E711		6PDT	Printed circuit□■	2.62
27E254		8PDT	Printed circuit□	2.19
27E193		DPDT	Printed circuit§	.88
27E717		DPDT	Printed circuit§■	1.37
27E194		4PDT	Printed circuit§	1.11
27E740		4PDT	Printed circuit§■	1.99
27E195		6PDT	Printed circuit§	1.42
27E215		DPDT	Printed circuit#	6.45
27E732		DPDT	Printed circuit#■	6.67
27E216		4PDT	Printed circuit#	7.40
27E734		4PDT	Printed circuit#■	7.98
27E212		DPDT	Printed circuit	.88
27E713		DPDT	Printed circuit■	1.37
27E213		4PDT	Printed circuit	1.11
27E714		4PDT	Printed circuit■	1.99
27E271		6PDT	Printed circuit	1.42
27E715		6PDT	Printed circuit■	2.62
27E317		DPDT	Solder▲	1.46
27E152		4PDT	Solder▲	1.69
27E737		4PDT	Solder▲■	2.54
27E169		6PDT	Solder▲	2.00
27E131	R12	DPDT	Solder□	1.42
27E132			Printed circuit□	1.42
27E328	R14, R15	DPDT, 4PDT	Solder□	2.19
27E323	R40	4PDT	Printed circuit#	2.31
27E134			Printed circuit	1.95
27E135			Solder●	2.33
27E487	K10	DPDT	Screw—10A	5.16
27E488		DPDT	Solder—10A	1.34
27E489		DPDT	Printed circuit—10A	1.41

†And KAP, KBP, KCP, KRP, KRP3-H, CD21, CD38, CH, CK, CR, and CS38. □Has grounding strip for 5 amps or less AC §Has grounding terminals for 5 amps or less AC. #Right-angle mounting. ●Chassis mount. ▲Has mounting bracket. ■With gold flash on terminals

RELAY COVERS

Model 35D013—Metal dust cover for PRD Series only.
Net Each $8.15

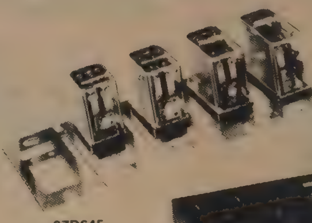
Model 35D070—Clear polycarbonate case for mounting components. Octal plug termination. Net Each $1.31

Model 35D072—Same as 35D070, except 11-pin plug termination.
Net Each $1.56

Model 35D130—Metal dust cover for MS/MR Series only.
Net Each $6.90

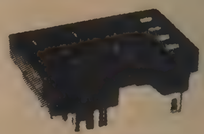
Model 35D203—Plastic dust cover for PM Series only.
Net Each $1.91

Model 35D227—Metal dust cover for PM Series only.
Net Each $9.88



37D645

35D227



27E126

27E123

27E119

RELAY MOUNTING STRIPS

P & B Number	No. of Sockets and Type	Size, Inches	Net Each★
37D632	6 KU□	11.9" × 3.00" × 062"	$2.92
37D633#	8 KH†, 8 K10	10.9" × 2.25" × 062"	2.26
37D645#	10 R10-R15	12.00" × 2.56" × 064"	2.11

#Breakaway strips will mount from one relay to the maximum number shown. □Except No. 27E121. †Except No. 27E166.

SOCKET RETAINERS

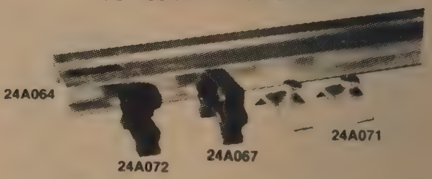
P & B Number	Used With Socket No.	Net Each★
24A032	27E006	$0.09
24A051	27E062	.24
24A050	27E135	.11

HOLD-DOWN SPRINGS

P & B Number	Use With Relays	Net Each★
20C176	KCP, KRP, KRPA	$0.30
20C206	KAP, KRP3–H	.28
20C217	CD-31, KHS, KHU, K10	.22
20C228	CL, CU, KUA, KUL, KUMP□, KUP□, KUR, KU, KUEP	.30
20C246	KNP	.20
20C247	CL-51, CU, KUL	.42
20C249	R10/2P	.11
20C250	R10/4P	.11
20C251	R10/6P	.11
20C252	R40	.11
20C259	R10S-E2	.11
20C266	R10/8P, R14, R15	.11
20C297	K10	.22
20C300	R10S/2P	.16
20C301	R10S/4P	.16

□Plain case

TACK MOUNT SYSTEM FOR SCREW TYPE SOCKETS



For mounting several industrial screw type sockets **No. 24A064:** Three ft. aluminum track with slotted holes on 6" centers for #8 screws **No. 24A072:** Plastic clip for mounting 27E122 and 27E123 sockets; two required per socket **No. 24A071:** Steel retaining clip and 6-40 screw for mounting 27E121, 27E122, 27E123, and 27E166 sockets; two required per socket. **No. 24A067:** Plastic twist-clip for mounting 27E487 socket; two required per socket.

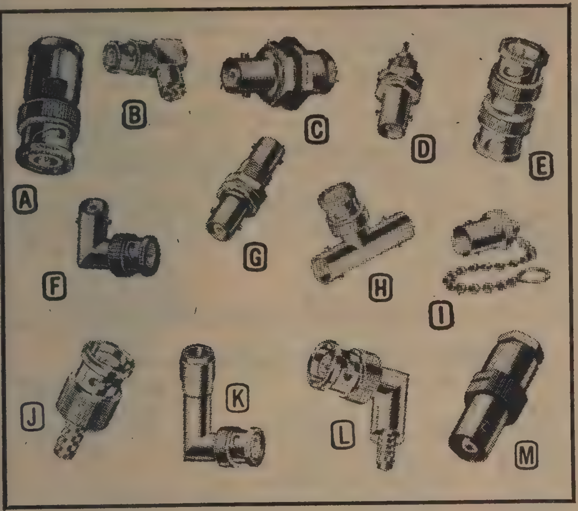
P & B Number	Description	No. Required per Socket	Net Each★
24A064	Aluminum track	....	$3.29
24A072	Plastic clip	2	.20
24A067	Plastic twist clip	2	.21

PRICES SHOWN ARE FOR REFERENCE ONLY

★LARGER QUANTITY PRICES ON REQUEST

BUNKER RAMO AMPHENOL RF Connectors

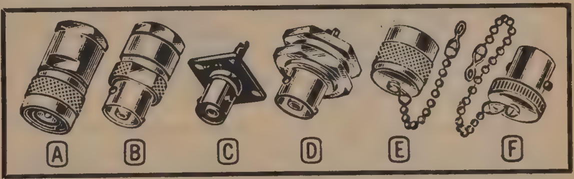
BNC CONNECTORS



Bayonet coupling coax connectors designed for RG-58, RG-59 and other cable as indicated. Use to 10,000 MHz, 500 V maximum.

Amphenol No.	MIL No.	Fig.	Description	Imp. Ohms	RG Cable
31-002	UG88/U	A	Plug		55, 58
31-012	UG260/U	A	Plug		59, 62, 71
31-018	UG88B/U	A	Plug		55, 58
31-021	UG260A/U	A	Plug		59, 62, 71
31-202	UG88C/U	A	Plug	50	55, 58
31-212	UG260B/U	A	Plug		59, 62, 71
31-4326	M39012	J	Plug		55, 142, 223
31-3301	M39012	A	Plug		55, 58, 141
31-4320	M39012	J	Plug		58, 141, 303
31-4321	M39012	J	Plug		59, 62, 140
31-3302	M39012	A	Plug		59, 62, 140
31-4322	M39012	J	Plug		71
31-3303	M39012	A	Plug		122, 180
31-204	UG913/U	B	Angle Plug		55, 58
31-850		B	Angle Plug		59, 62, 71
31-3365	M39012	K	Angle Plug		55, 142
31-3361	M39012	L	Angle Plug		55, 55A, 58
31-3364	M39012	K	Angle Plug		58, 141
31-005	UG89/U		Jack		55, 58
31-015	UG261/U		Jack		59, 62, 71
31-019	UG89A/U		Jack		55, 58
31-022	UG261A/U		Jack		59, 62, 71
31-205	UG89B/U		Jack	50	55, 58
31-215	UG261B/U		Jack		59, 62, 71
31-4333	M39012		Jack		55, 142, 223
31-3319	M39012	M	Jack		55, 58, 141
31-4327	M39012		Jack		58, 141, 303
31-4328	M39012		Jack		59, 62, 140
31-3320	M39012	M	Jack		59, 62, 71
31-3321	M39012	M	Jack		122, 180
31-001	UG291/U		Panel Jack		55, 58
31-011	UG262/U		Panel Jack		59, 62, 71
31-020	UG291A/U		Panel Jack		55, 58
31-201	UG291B/U		Panel Jack	50	55, 58
31-211	UG262B/U		Panel Jack		59, 62, 71
31-3333	M39012		Panel Jack		55, 58, 141
31-3334	M39012		Panel Jack		59, 62, 71
31-3335	M39012		Panel Jack		122, 180
31-206	UG909/U	C	Blkhd. Jack	50	55, 58
31-207	UG910/U	C	Blkhd. Jack		59, 62, 71
31-4341	M39012		Blkhd. Jack		55, 142, 223
31-3347	M39012	C	Blkhd. Jack		55, 58, 141
31-4343	M39012		Blkhd. Jack		59, 62, 140
31-3348	M39012	C	Blkhd. Jack		59, 62, 71
31-4346	M39012		Blkhd. Jack		122
31-003	UG290/U		Panel Recpt.		
31-105			Panel Recpt.		
31-203	UG290A/U		Panel Recpt.	50	
31-817	UG447/U		Panel Recpt.		
31-842			Panel Recpt.		
4500	UG185/U		Panel Recpt.		
31-3377	M39012		Panel Recpt.		
31-222	UG1098/U		Angle Recpt.	50	
31-016	UG254A/U	D	Blkhd. Recpt.		
31-102	UG657/U	D	Blkhd. Recpt.		
31-221	UG1094/U	D	Blkhd. Recpt.	50	
31-236	UG625B/U	D	Blkhd. Recpt.	50	
31-3375	M39012	D	Blkhd. Recpt.		
31-4238	M39012	D	Blkhd. Recpt.		
31-3376	M39012	D	Blkhd. Recpt.		
31-4237	M39012	D	Blkhd. Recpt.		
31-218	UG491A/U	E	Adapter	50	
31-219	UG914/U	E	Adapter	50	
31-009	UG306/U	F	Angle Adapter		
31-209	UG306A/U	F	Angle Adapter	50	
31-220	UG492A/U	G	Blkhd. Adapter	50	
47000	UG414/U	G	Blkhd. Adapter		
31-008	UG274/U	H	"T" Adapter		
31-208	UG274A/U	H	"T" Adapter	50	
31-006	CW123/U		Cap & Chain		
31-007	CW155/U		Cap & Chain		
31-017	CW159/U		Cap & Chain		
31-026	M39012		Cap & Chain		
31-027	CW155A/U		Cap & Chain		
31-210	CW282/U	I	Cap & Chain		

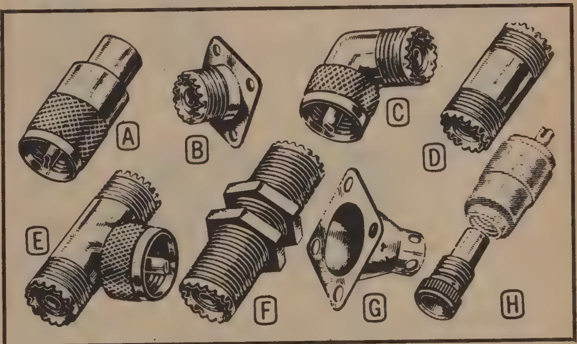
SERIES 82 TYPE C COAXIAL CONNECTORS



Low VSWR to 10,000 MHz, 1,500 V peak. Also used with cables other than 50 ohms. Meets applicable portions of MIL-C-3989.

Amphenol No.	UG/U No.	Fig.	Description	RG Cable
82-530	573A	A	Plug	8, 9
82-532	628A	A	Plug	8, 9A
82-534	709A	A	Plug	55, 58
82-531	710A		Angle Plug	8, 9
82-503	572	B	Panel Jack	8, 9
82-504	568	C	Panel Recpt.	
82-515	634	D	Blkhd. Recpt.	
82-535	567A		Angle Adapter	
82-512	MX-1142	E	Male Cap & Chain	
82-513	MX-1143	F	Female Cap & Chain	

SERIES 83 UHF TYPE COAXIAL CONNECTORS

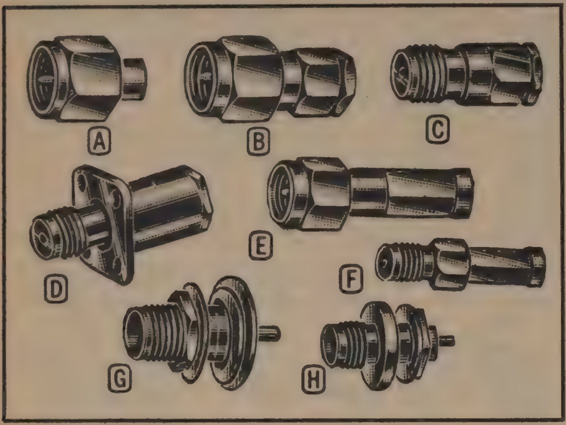


Small, single contact, general purpose connectors of non-constant impedance. Meet military specifications.

Amphenol No.	UG/U No.	Fig.	Description	RG/U Cable
83-1SP	PL259	A	Plug	8, 11
83-1SPN	PL259A	A	Plug	8, 11
83-750	111	A	Plug	59, 62
83-850		A	Plug	11
83-851		A	Plug	8
83-59			Angle Plug	8, 11
83-1R	SO239	B	Panel Recpt.	
83-716		B	Panel Recpt.	
83-798	SO239A		Panel Recpt.	
83-1F	363	F	Straight Adapter	
83-1J	PL258	D	Straight Adapter	
83-1AP	646	C	Angle Adapter	
83-1T		E	"T" Adapter	
83-168	176	H	Reducing Adapter	59, 62, 71
83-185	175	H	Reducing Adapter	55, 58
83-1H	106	G	Hood	8, 11
83-1HP	372	G	Hood	8, 11
83-765	177	G	Hood	55, 58
83-877			Double Male Adpt.	
83-878			Single Hole Recpt.	

BUNKER RAMO AMPHENOL RF Connectors

SERIES SMA SEMI-PRECISION 3mm HIGH FREQUENCY CONNECTORS



Excellent mechanical and electrical performance, DC to 18 GHz, even after 100 mating cycles. "Thin Wall" beryllium copper bodies have .00452" interface mating cross-section. Coupling nut torque can be twice that of other SMA designs. Easy assembly requires only a simple, low-cost tool kit; crimp style uses standard BNC/TNC Crimper No. 227-350.

Amphenol No. 901-2500 Tool Kit—Jacket and dielectric trim tools for precise cable preparation required for electric performance specified. Net Each, Lots 1–24.................. **$14.90**

PLUGS AND JACKS

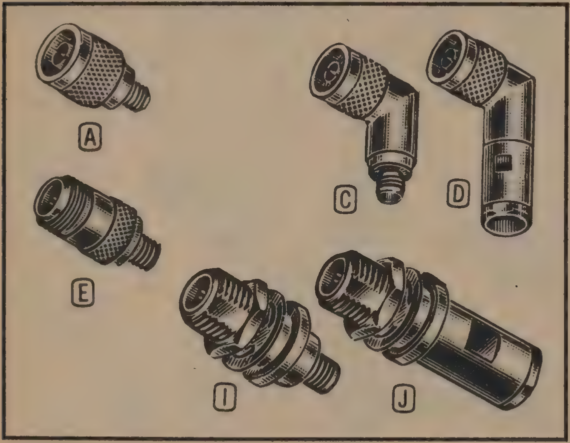
Solder affixment, except: *Clamp; †Crimp.

Amphenol Number	Fig.	Description	For RG/U Cable
901-113	A	Plug, less contact & insul.	.141" dia. Cujak
901-105	B	Plug with contact & insul.	.141" dia. Cujak
901-106	C	Jack with contact & insul.	.141" dia. Cujak
901-103*	....	Straight plug	55, 58, 141, 142, 223
901-104*	....	Straight jack	55, 58, 141, 142, 223
901-121*	D	Panel jack	55, 58, 141, 142, 223
901-101†	E	Straight plug	55, 142, 223
901-102†	F	Straight jack	55, 143, 223
901-109†	....	Straight plug	58, 141, 303
901-110	....	Straight jack	58, 141, 303

RECEPTACLES & WITHIN-SERIES ADAPTERS

Amphenol Number	Fig.	Description	Std. Wave Ratio	
			Max. SWR	To f(GHz)
901-112	....	Panel receptacle	....	....
901-116	G	Rear-mt. bulkhead recept.	....	....
901-117	H	Front-mt. bulkhead recept.	....	....
901-118	....	Straight plug-plug adapter	1.15	.01
901-119	....	Straight jack-jack adapter	1.15	.01
901-120	....	Bulkhead jack-jack adapter	1.15	.01

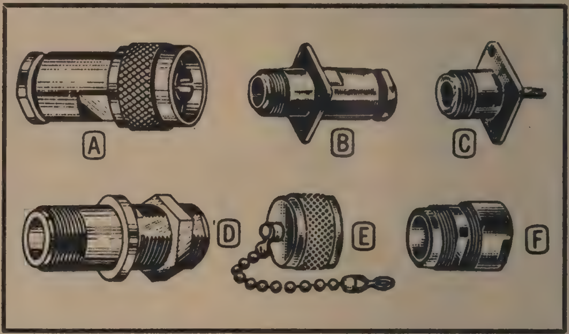
TYPE N MIL-C-39012 CONNECTORS



Medium size, weather proof, threaded coupling units for use up-to microwave frequencies. Designed to meet MIL-C-39012. They have crimpable fully captivated contacts, cable retention equal to the strength of the cable braid and utilize the same series of crimpable tools as the Amphenol BNC/TNC MIL type. Frequency range 0–10,000 MHz. 1500 V peak voltage.

Amphenol Number	UG/U No.	Fig.	MIL No. M39012/	Imped. Ohms	RG/U Cable
82-340	1681	A	Mil crimp 01-0007	50	8, 9, 213
82-332	1682	A	Mil crimp 01-0008	50	214
82-5375	......	A	Mil crimp	50	142, 223
82-336	1708	C	Mil crimp 05-0003	50	8, 9, 213, 214
82-5374	......	C	Mil crimp	50	223
82-337	1688	E	Mil crimp 02-0008	50	8, 9, 213, 214
82-333	1689	E	Mil crimp 02-0009	50	....
82-335	1701	I	Mil crimp 03-0005	50	8, 9, 213, 214
82-5373	......	I	Mil crimp	50	142, 223

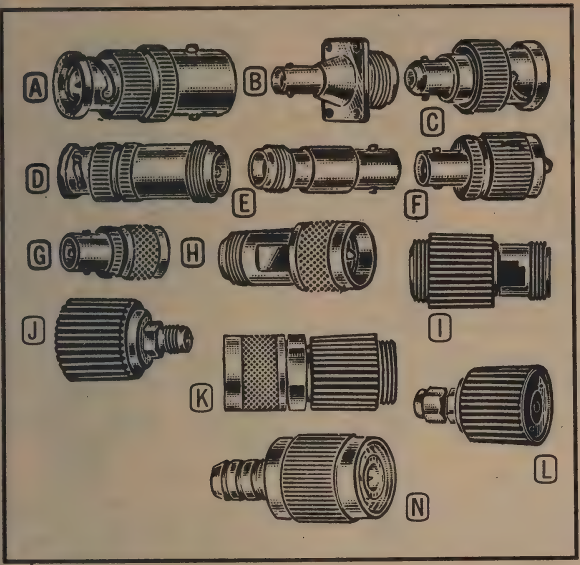
TYPE N COAXIAL CONNECTORS



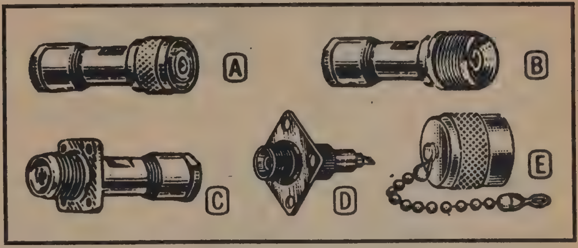
Impedance matched to 50 or 70-ohm cables. 50-ohm connectors **will not** mate with 75-ohm connectors. Frequency range, 0–10,000 MHz. 500 V maximum. Threaded coupling.

Amphenol No.	UG/U No.	Fig.	Description	Imped. Ohms	RG/U Cable
82-61	21B	A	Plug	50	8, 9, 10
82-84	94A	A	Plug	70	11, 12, 13
82-86	18B	A	Plug	50	5, 6, 21
82-96	21C	A	Plug	50	8, 9, 10
82-104	167A	....	Plug	50	17, 18
82-202	21D	A	Plug	50	8, 9, 10
82-203	18C	A	Plug	50	5, 6, 21
34000	536	A	Plug	50	58, 141
82-835	....	....	Angle Plug	50	8, 9, 10, 87A
82-63	23B	B	Jack	50	8, 9, 10
82-89	95A	B	Jack	70	11, 12, 13
82-209	23D	B	Jack	50	8, 9, 10
82-62	22B	B	Panel Jack	50	8, 9, 10
82-67	160A	....	Blkhd. Jack	50	8, 9, 10
82-93	160B	....	Blkhd. Jack	50	8, 9, 10
82-24	58	C	Panel Recpt.	50	....
82-97	58A	C	Panel Recpt.	50	....
82-112	....	C	Panel Recpt.	70	....
82-811	680	....	Blkhd. Recpt.	50	....
82-65	29A	D	Adapter	50	....
82-100	57B	D	Adapter	50	....
82-101	29B	D	Adapter	50	....
82-64	27A	....	Angle Adapter	50	....
82-98	27B	....	Angle Adapter	50	....
82-213	27C	....	Angle Adapter	50	....
82-66	30	....	Blkhd. Adapter	50	....
82-36	107A	....	"T" Adapter	50	....
82-99	28A	....	"T" Adapter	50	....
82-102	107B	....	"T" Adapter	50	....
82-106	MX913	E	Cap & Chain	....	....

BUNKER RAMO AMPHENOL RF Connectors



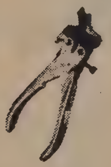
TYPE HN COAXIAL CONNECTORS



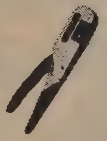
Medium size, high voltage, 50-ohm constant impedance connectors with threaded coupling. Meets applicable sections of MIL-C-3643. Low VSWR to 10.000 MHz. 1.500 V maximum.

Amphenol No.	UG/U No.	Fig.	Description	RG/U Cable
82-38	59A	A	Straight Plug	8, 9, 10
82-111	495A	A	Straight Plug	17, 18
82-804	59B	A	Straight Plug	8, 9, 10
82-816	....	A	Straight Plug	54A
82-833	....	......	Angle Plug	8, 9, 10
82-856	....	......	Angle Plug	8, 9, 10
82-39	60A	B	Straight Jack	8, 9, 10
82-814	60B	B	Straight Jack	8, 9, 10, 87
82-92	496	D	Panel Recpt.	....
82-805	560	D	Panel Recpt.	....
82-91	212A	......	Angle Adapter	....
82-130	....	E	Cap & Chain	....

RF CRIMPING TOOLS



227-900



227-944

Attach connectors to cables quickly and easily. Crimping force automatically controlled. Meets MIL specifications.

Amphenol No.	Connector Series	For use with RG/U cable
227-900	27 Shield Only	174, 179, 187, 188
227-901		180, 195
227-902		Adapter for 27-14 connector
227-913		Adapter for 27-4, 27-8, 27-10
227-914		Adapter for 27-16, 27-20, 27-22
227-1221-57	N Shield and Contact	55, 58, 141, 142, 223, 303, 400
227-1221-59		59, 62, 140, 210
227-1221-29		5, 6, 21, 143, 212, 222, 304
227-1221-25		8, 9, 11, 87A, 149, 165, 213, 214, 216, 225, 393
227-1221-09	BNC & TNC Shield and Contact	122, 174, 179, 180, 187, 188, 195. Essex 21-597
227-1221-11		55, 58, 141, 142, 223, 303, 400
227-1221-13		59. 62, 140, 210
227-1221-15		71
227-1221-11	MHV Shield Only	55, 58, 141, 142, 223, 303, 400
227-1221-11	UHF Shield Only	55, 58, 141, 142, 223, 303, 400
227-1221-13		59, 62, 140, 210
227-1221-23		8, 11, 149, 213
227-1221-09	SMA Shield Only	122, 174, 179, 180, 187, 188, 195
227-1221-11		55, 58, 141, 142, 223, 303, 400
227-944		Frame only for all 227-1221 die sets

OUR STOCKS ARE COMPLETE

AND UP TO DATE

BETWEEN SERIES ADAPTERS

APC, BNC, C, HN, MB, N, SMA, TNC, UHF

Amphenol No.	UG/U No.	Fig.	Mates with				Imp., Ohms
			Plug	Recept.	Plug	Recept.	
83175	635	A	....	BNC	C	....	50
83200	636A	A	BNC	....	....	C	50
8900	309	B	BNC	....	....	HN	50
47250	....	C	BNC	....	....	MB	50
47275	....	C	....	BNC	MB	....	50
31-216	201A	D	BNC	....	....	N	.....
31-217	349A	D	....	BNC	N	....	.....
31-830	201	D	BNC	....	....	N	.....
2800*	....	D	BNC	....	N	....	50
2975	349	D	....	BNC	N	....	50
4900	....	D	....	BNC	....	N	50
5225	1034	D	....	BNC	....	N	50
5850‡	....	D	BNC	....	N	....	50
21850†	....	D	BNC	....	N	....	50
79025	....	E	....	BNC	TNC	....	50
79675	....	E	BNC	....	....	TNC	50
31-028	273	F	BNC	....	....	UHF	.....
2900	255	F	....	BNC	UHF	....	50
12025	....	F	BNC	....	....	UHF	50
82-508	564	G	C	....	....	N	50
82-540	565A	G	....	C	N	....	50
4400	146	H	....	N	UHF	....	.....
14000	83	H	N	....	....	UHF	.....
26700	318	H	....	N	....	UHF	.....
131-1025	....	I	APC-7		....	N	50
131-1026	....	....	APC-7		....	BNC	50
131-1027	....	....	APC-7		....	OSM	50
131-1028	....	J	APC-7		....	SMA	50
131-1035	....	K	APC-7		N	....	50
131-1036	....	....	APC-7		TNC	....	50
131-1037	....	....	APC-7		BNC	....	50
131-1038	....	L	APC-7		SMA	....	50

*Angle, flange mount. †Bulkhead mount. ‡Pressurized, bulkhead mount.

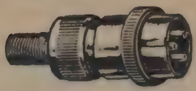
QUICK-CRIMP TNC SERIES CONNECTORS

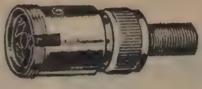
Exclusive design has optional crimp or solder center contact. Maintains constant impedance even when center contact is crimped. Non-impedance match connector when used with cables other than 50 ohms. VSWR is identical to standard solder type TNC connectors, 1.25 to 1, over frequency range to 10,000 MHz.

Amphenol No.	Fig.	Description	RG/U Cable
36825	N	Plug	58, 58A, 58C, 141

BUNKER RAMO AMPHENOL Audio Connectors

THREADED COUPLING SERIES 91

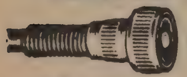




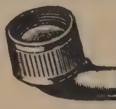
Mounting hole, ¹¹⁄₁₆" diameter; maximum ⅛" thick panel. Three contacts, except (*), 4 contacts; (†), 6 contacts. Black phenolic dielectric chrome plated brass shells.

Amphenol No.	Description	Net Each, Lots of 1-49	50-99	100-249	250-499	500-999*
91-CCC3	Cap and chain	$2.00	$1.59	$1.39	$1.18	$1.00
91-MC3F	Female jack	4.04	3.22	2.80	2.39	2.03
91-MC3F1	Female plug	4.11	3.27	2.85	2.43	2.07
91-MC3M	Male plug	3.85	3.07	2.67	2.28	1.94
91-MC3M1	Male jack	3.97	3.16	2.75	2.35	1.99
91-MC4F	Female jack*	4.21	3.35	2.92	2.49	2.11
91-MC4F1	Female plug*	4.11	3.27	2.85	2.43	2.07
91-MC4M	Male plug*	3.45	2.75	2.40	2.04	1.73
91-MC4M1	Male jack*	3.78	3.01	2.62	2.24	1.90
91-MC6F	Female jack†	4.79	3.81	3.33	2.84	2.41
91-MC6M	Male plug†	3.78	3.01	2.62	2.24	1.90
91-PC3F	Female recept.	3.13	2.49	2.17	1.85	1.57
91-PC6F	Female rcpt.†	3.45	2.75	2.40	2.04	1.73
91-PC3M	Male recept.	2.56	2.04	1.78	1.52	1.29
91-PC4F	Female rcpt.*	2.96	2.36	2.05	1.75	1.49
91-PC4M	Male recept.*	2.61	2.08	1.81	1.54	1.31
91-PC6M	Male recept.†	2.66	2.11	1.84	1.57	1.33

SERIES 75 MICROPHONE CONNECTORS



A



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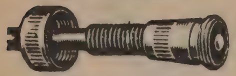
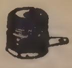


C



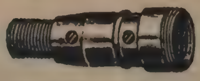
D

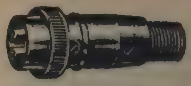
Unique button contact and threaded coupling permit plug conversion to jack by removal of coupling ring. Receptacles mount in .385" holes when grounding, .500" holes for ungrounded two circuit operation.

Amphenol No. 80-	Description	Fig.	Net Each, Lots of 1-49	50-99	100-249	250-499	500-999*
75-CCC1*	Cap and chain	....	$2.23	$1.78	$1.55	$1.32	$1.12
75-MC1F	Straight plug	A	2.56	2.04	1.78	1.52	1.29
75-MC1FA	Angle plug	B	6.44	5.12	4.47	3.81	3.23
75-MC1M	Cable jack	C	1.95	1.55	1.35	1.15	.98
75-MC1P	Phone pl. adpt.	...	2.02	1.61	1.40	1.20	1.01
75-PC1M	Chassis recept.	D	2.19	1.74	1.52	1.29	1.10

*May also be used with Series 80 connectors.

SERIES 80 MICROPHONE CONNECTORS

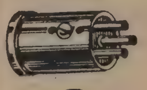




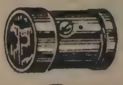
All mount in ⅝" hole. Maximum panel thickness for receptacles is ¹¹⁄₃₂". Single contacts, except (*), 2 contacts. Chrome finish.

Amphenol No.	Description	Net Each, Lots of 1-49	50-99	100-249	250-499	500-999*
80-C	Female recept.	$2.12	$1.68	$1.47	$1.25	$1.06
80-M	Male plug	2.98	2.37	2.07	1.77	1.50
80-MC2F	Female jack*	3.34	2.66	2.31	1.97	1.68
80-MC2F1	Female plug*	3.64	2.90	2.53	2.15	1.83
80-MC2M	Male plug*	3.10	2.47	2.15	1.83	1.56
80-MC2M1	Male jack*	3.15	2.51	2.18	1.86	1.58
80-PC2F	Female rcpt.*	2.37	1.89	1.65	1.40	1.19
80-PC2M	Male recept.*	2.26	1.80	1.56	1.33	1.13

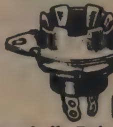
MINIATURE CABLE CONNECTORS



A



B



C

Black phenolic dielectric in cadmium plated brass shell. Polarized contact spacing. Plugs and receptacles take cables up to ¼" dia. Panel receptacle mounts in ⅞" hole with two 6-32 screw holes on 1¼" centers. Series 91 also available in short shell. Prices on request.

SERIES 91 PLUGS (FIG. A)

Amphenol No.	Contacts	Net Each, Lots of 1-49	50-99	100-249	250-499	500-999*
91-MPM-3L	3	$2.09	$1.66	$1.45	$1.24	$1.05
91-MPM-4L	4	2.12	1.68	1.47	1.25	1.06
91-MPM-5L	5	2.14	1.70	1.48	1.26	1.07
91-MPM-6L	6	2.16	1.72	1.50	1.28	1.09

SERIES 91 RECEPTACLES (FIG. B)

Amphenol No.	Contacts	Net Each, Lots of 1-49	50-99	100-249	250-499	500-999*
91-MPF-3L	3	$2.23	$1.78	$1.55	$1.32	$1.12
91-MPF-4L	4	2.37	1.89	1.65	1.40	1.19
91-MPF-5L	5	2.42	1.93	1.68	1.43	1.22
91-MPF-6L	6	2.54	2.02	1.76	1.50	1.27

PANEL RECEPTACLES (FIG. C)

Amphenol No.	Contacts	Net Each, Lots of 1-49	50-99	100-249	250-999	1000-2499*
78-PCG3	3	$1.89	$1.62	$1.29	$1.11	$0.95
78-PCG4	4	2.25	1.92	1.54	1.32	1.13
78-PCG5	5	2.71	2.31	1.85	1.59	1.36
78-PCG6	6	2.95	2.52	2.01	1.73	1.48

SERIES 91T MINIATURE CABLE-TO-PANEL CONNECTORS

Approximately 33% smaller than above Series 91. Provide high density, low cost, top quality interconnections for microphones, recorders, two-way radios, industrial controls and data processing. Threaded coupling lock design.

No. of Contacts	CABLE PLUGS: Straight: Amphenol No. 703-	Net Each, Lots of 1-49	50-99	100-249	Right Angle: Amphenol No. 703-	Net Each, Lots of 1-49	50-99	100-249	PANEL RECEPTACLES: Amphenol No. 703-	Net Each, Lots of 1-49	50-99	100-249
2	91-T-3200-1	....	$3.51	$2.93	91-T-3200-6	....	$4.38	$3.64	91-T-3203-9	....	$1.81	$1.51
3	91-T-3260-1	$4.09	3.35	2.78	91-T-3260-6	....	4.50	3.75	91-T-3263-9	$2.14	1.73	1.46
4	91-T-3300-1	4.09	3.35	2.78	91-T-3300-6	$5.63	4.62	3.85	91-T-3303-9	2.20	1.81	1.51
5	91-T-3360-1	4.17	3.40	2.36	91-T-3360-6	5.74	4.70	3.93	91-T-3363-9	2.41	1.96	1.64
6	91-T-3400-1	4.58	3.73	3.12	91-T-3400-6	5.76	4.73	3.94	91-T-3403-9	2.43	1.98	1.67
7	91-T-3475-1	4.63	3.79	3.16	91-T-3475-6	5.98	4.90	4.09	91-T-3478-9	2.62	2.15	1.79
12	91-T-3635	7.70	6.29	5.25	91-T-3635-6	10.90	8.92	7.44	91-T-3638-9	5.87	4.80	4.01

★LARGER QUANTITY PRICES ON REQUEST

WRITE US FOR INFORMATION AND PRICING ON ALL NEW OR

UNLISTED ITEMS. NO SPECIAL ORDER NUMBERS NECESSARY,

JUST USE THE MANUFACTURER'S MODEL NUMBERS.

BUNKER RAMO AMPHENOL MS/AN Insert Contacts

MANUFACTURED IN STRICT ACCORDANCE TO MIL-C-5015D SPECIFICATIONS

Contacts are non-rotating type with solder pockets pre-tinned. Inserts are all male or female; feature dimensional stability and high insulation and arc resistance. Sizes 20 and up have thicker inserts. Coupling rings made of solid aluminum bar stock for high strength. Number, in parenthesis, (1), (2), etc., indicates service voltage rating, per table below. Following letters (W,X,Y, and/or Z) give alternate pin positioning available per diagram, right.

SERVICE VOLTAGE RATING

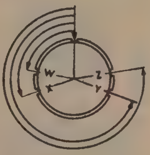
Where more than one rating is shown, (1,3) or (1-5) etc., some contacts have ratings different than other contacts; full information on request. (*) Indicates high voltage. (†) Thermocouple.

Key	(1)	(2)	(3)	(4)	(5)	(6)
Volts DC	250	700	1250	1750	2450	4200
Volts AC rms	200	500	900	1250	1750	3000

CURRENT RATING

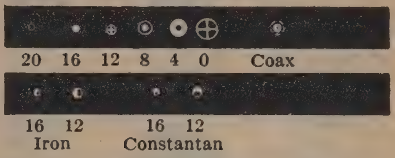
Contact Size	20	16	12	8	4	0
Amperes	10	22	41	73	135	245

ALTERNATE POSITIONS



WIRE SIZE CODE

Wire size indicated by contact marking in diagrams. Compare diagrams with these codes to determine wire size.



1 CONTACT

8S-1
(2)

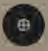
10S-2
(2)

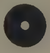
12S-4
(3)

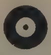
12-5
(3)

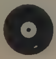
14-3
(2)

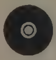
14S-4
(3)

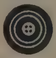

16-2
(4)

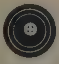

16S-3
(5)

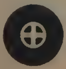

16-12
(2)


18-6
(3)

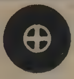

18-7
(5)

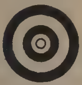

18-16
(6)


18-420
(*)


20-2
(3)

1 CONTACT


22-7
(4)


24-835
(*)

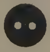
2 CONTACTS

10SL-4
(2)

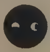
12S-3
(2)

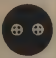
12S-6
(†)

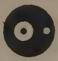
14S-9
(2)W,X,Y,Z

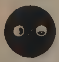

16S-4
(3)W,X,Y,Z

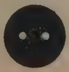
16-11
(2)W,X,Y,Z


16-13
(2,†)W,X,Y,Z

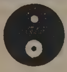

18-3
(3)W,X,Y,Z

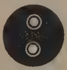

18-14
(2)W,X,Y,Z

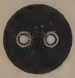

18-404
(†)W,X,Y,Z

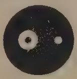

20-5
(4)W,X,Y,Z

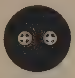
2 CONTACTS

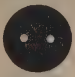

20-12
(2)W,X,Y,Z

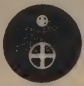

20-23
(2)W,X,Y,Z

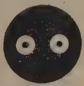

22-1
(3)W,X,Y,Z

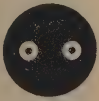

22-3
(3)W,X,Y,Z

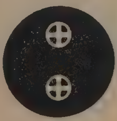

22-8
(4)W,X,Y,Z


22-11
(5)W,X,Y,Z


24-1
(3)W,X,Y,Z


24-9
(2)W,X,Y,Z


28-7
(3)W,X,Y,Z


32-5
(3)W,X,Y,Z

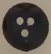
3 CONTACTS

10SL-3
(2)

14S-1
(2)

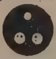
14S-7
(2)W,X,Y

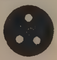
16S-5
(2)W,X,Y,Z

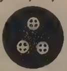

16S-6
(2)W,X,Y

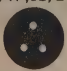
16-7
(2)W,X,Y,Z

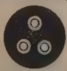
16-10
(2)W,X,Y

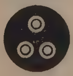

18-5
(3)W,X,Y,Z

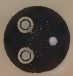

18-22
(3)W,X,Y,Z


20-3
(3)W,X,Y,Z

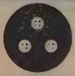

20-6
(3)W,X,Y,Z

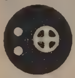

20-19
(2)W,X,Y

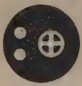

22-2
(3)W,X,Y,Z

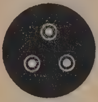

22-6
(3)W,X,Y,Z

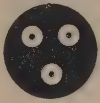
3 CONTACTS

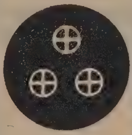

22-9
(4)W,X,Y,Z


22-21
(2)W,X,Y,Z


24-14
(2)W,X,Y,Z


28-3
(4)W,X,Y,Z

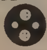

28-6
(3)W,X,Y,Z

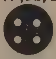

36-4
(2,3)W,X,Y,Z

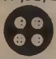
4 CONTACTS

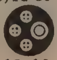
12SL-844
(1)

14S-2
(1)X or Y

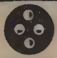

16-9
(2)W,X,Y,Z

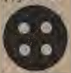

18-4
(3)W,X,Y,Z

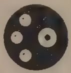

18-10
(2)X or Y

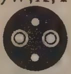

18-13
(2)W,X,Y,Z

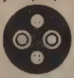
4 CONTACTS

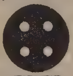

18-15
(2,†)X or Y

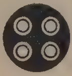

20-4
(3)W,X,Y

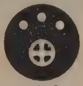

20-20
(2)W,X,Y,Z

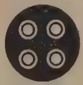

20-24
(2)W,X,Y,Z

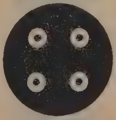

22-4
(2)W,X,Y,Z

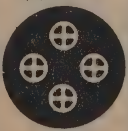

22-10
(4)W,X,Y,Z


22-22
(2)X or Y


24-4
(3)W,X,Y,Z

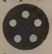

24-22
(3)W,X,Y

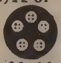

32-17
(3)W,X,Y

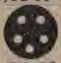

36-5
(2)X or Y

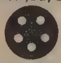
5 CONTACTS

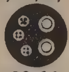
14S-5
(1)X

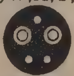

16S-8
(2)X or Y

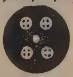

18-11
(2)X or Y

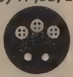

18-20
(2)W,X,Y

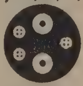

18-29
(2)W,X,Y

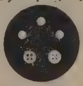

20-14
(2)W,X,Y,Z

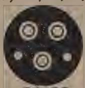

22-12
(3)W,X,Y,Z

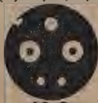

22-13
(2,3)W,X,Y,Z


22-34
(3)W,X,Y,Z

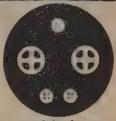

24-12
(2)W,X,Y,Z

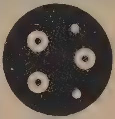

24-17
(3)W,X,Y,Z

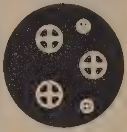

24-23
(3)W,X,Y,Z


28-5
(3)W,X,Y,Z

5 CONTACTS

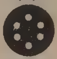

32-1
(3,4)W,X,Y,Z

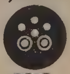

32-2
(4)W,X,Y,Z

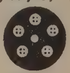

36-2
(3)

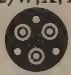
6 CONTACTS

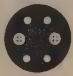
14S-6
(1)

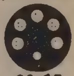

18-12
(2)W or Z

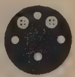

20-8
(1)W,X,Y,Z


20-17
(2)W,X,Y


20-22
(2)W,X,Y,Z

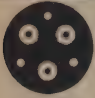

22-5
(3)W,X,Y,Z

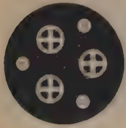

22-15
(2,4)W,X,Y,Z

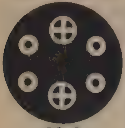

22-24
(2,3)W,X,Y,Z

BUNKER RAMO AMPHENOL MS/AN Insert Contacts

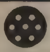
6 CONTACTS

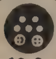

28-22
(3) W,X,Y,Z

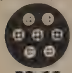

36-3
(3) W,X,Y,Z

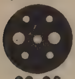

36-6
(2) W,X,Y,Z

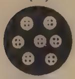
7 CONTACTS

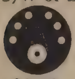

16S-1
(2) W or Z

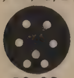

18-9
(1) W,X,Y,Z

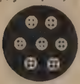

20-15
(2) W or Z

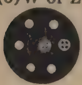

22-26
(3)

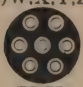

22-28
(2) W or Z

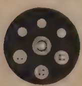

22-29
(2) W,X,Y,Z


22-33
(2,3) W,X,Y,Z

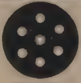

24-2
(3) W or Z

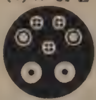

24-3
(3) W,X,Y,Z

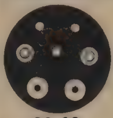

24-10
(2) W or Z


24-16
(2,3) W,X,Y,Z

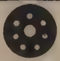
7 CONTACTS

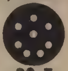

24-27
(4) W or Z

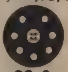

28-10
(2,3) W,X,Y,Z

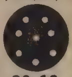

32-10
(2-5) W,X,Y,Z

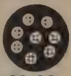
8 CONTACTS

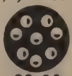

18-8
(2) W or Z

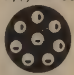

20-7
(2,3) W,X,Y,Z

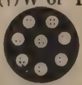

20-9
(2,3) W,X,Y,Z

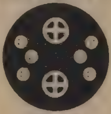

22-18
(2,3) W,X,Y,Z


22-23
(2,3) W or Y

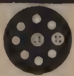

22-36
(2,3,†) W or Y

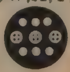

22-404
(†) W or Y


24-6
(2,3) W,X,Y,Z

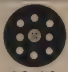

32-15
(3) W,X,Y,Z

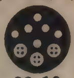
9 CONTACTS

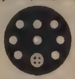

20-16
(2) W,X,Y,Z

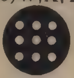

20-18
(2) W,X,Y,Z

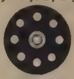
9 CONTACTS

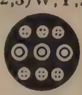

20-21
(2) W,X,Y,Z

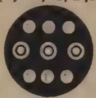

22-16
(2) W,X,Y,Z

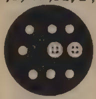

22-17
(2,3) W,X,Y,Z

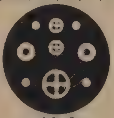

22-20
(2) W,X,Y,Z


22-27
(2,3) W,Y,Z

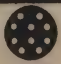

24-11
(2) W,X,Y,Z

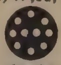

28-1
(2,3) W,X,Y,Z

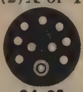

28-4
(3,4) W,X,Y,Z

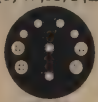

32-3
(3) W,X,Y,Z

10 CONTACTS

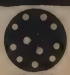

18-1
(1,2) W,X,Y,Z


18-19
(2) X or Y

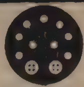

24-21
(3) W,X,Y,Z

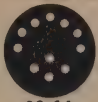

28-19
(2,3,5) W,X,Y,Z

11 CONTACTS

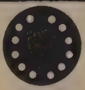

20-33
(2)

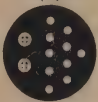
11 CONTACTS

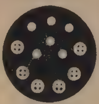

24-20
(3) W,X,Y,Z

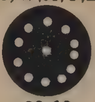

28-14
(3) W,X,Y,Z

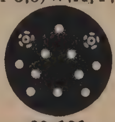
12 CONTACTS


24-19
(1)

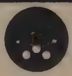

28-8
(2-4) W,X,Y,Z


28-9
(3) W,X,Y,Z

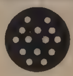

28-18
(1-3,6) W,X,Y,Z

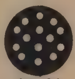

32-101
(3,6) W,X,Y,Z

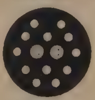
13 CONTACTS

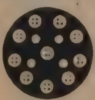

20-11
(1)

14 CONTACTS

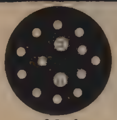

20-27
(1,2) W,X,Y,Z

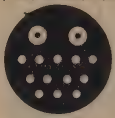

22-19
(2) W,X,Y,Z

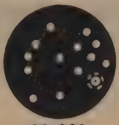

28-2
(3) W,X,Y,Z


28-20
(2) W,X,Y,Z

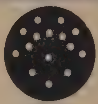
14 CONTACTS

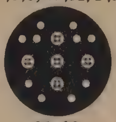

32-4
(2,3) W,X,Y,Z

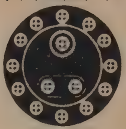

32-9
(3) W,X,Y,Z

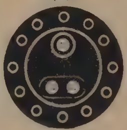

32-102
(2,3,6) W,X,Y,Z

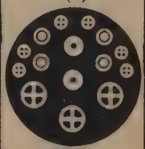
15 CONTACTS


28-17
(2,3,5) W,X,Y,Z

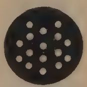

32-12
(2,3) W,X,Y,Z

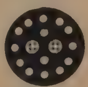

36-405
(*)


36-407
(*)

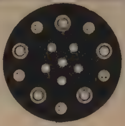

40-5
(2) W,X,Y,Z

16 CONTACTS

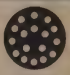

24-5
(2) W,X,Y,Z

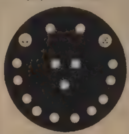

24-7
(2) W,X,Y,Z

16 CONTACTS

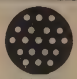

36-14
(3) W,X,Y

17 CONTACTS

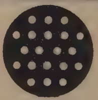

20-29
(2) W or Z


36-13
(2,4) W,X,Y,Z

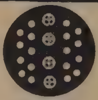
19 CONTACTS

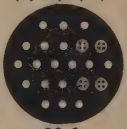

22-14
(2) W,X,Y,Z

20 CONTACTS

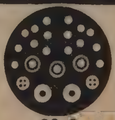

28-16
(2) W,X,Y,Z

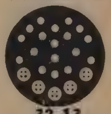
22 CONTACTS

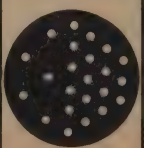

28-11
(2) W,X,Y,Z


36-1
(3) W,X,Y,Z

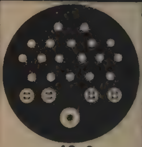
23 CONTACTS

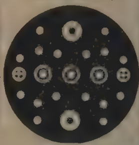

32-6
(2) W,X,Y,Z


32-13
(3) W,X,Y,Z

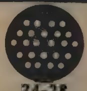

40-2
(3,5) W,X,Y,Z

23 CONTACTS

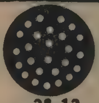

40-3
(3) W,X,Y,Z


40-4
(3) W,X,Y,Z

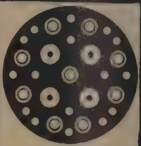
24 CONTACTS


24-28
(1) W,X,Y,Z

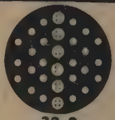
26 CONTACTS

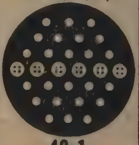

28-12
(2) W,X,Y

29 CONTACTS

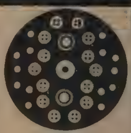

40-10
(2) W,X,Y,Z

30 CONTACTS

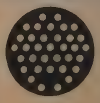

32-8
(2) W,X,Y,Z


40-1
(3) W,X,Y,Z

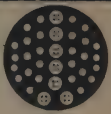
31 CONTACTS

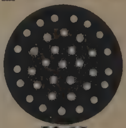

36-9
(2) W,X,Y,Z

35 CONTACTS

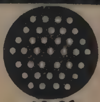

28-15
(2) W,X,Y,Z

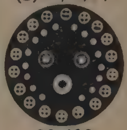
35 CONTACTS


32-7
(1,2) W,X,Y,Z

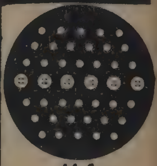

36-15
(2,3) W,X,Y,Z

37 CONTACTS

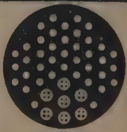

28-21
(2) W,X,Y,Z

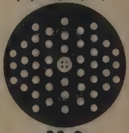

36-406
(2)

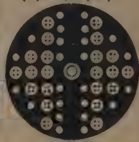
42 CONTACTS


44-1
(3) W,X,Y,Z

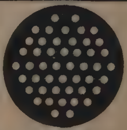
47 CONTACTS


36-7
(2) W,X,Y,Z


36-8
(2) W,X,Y,Z

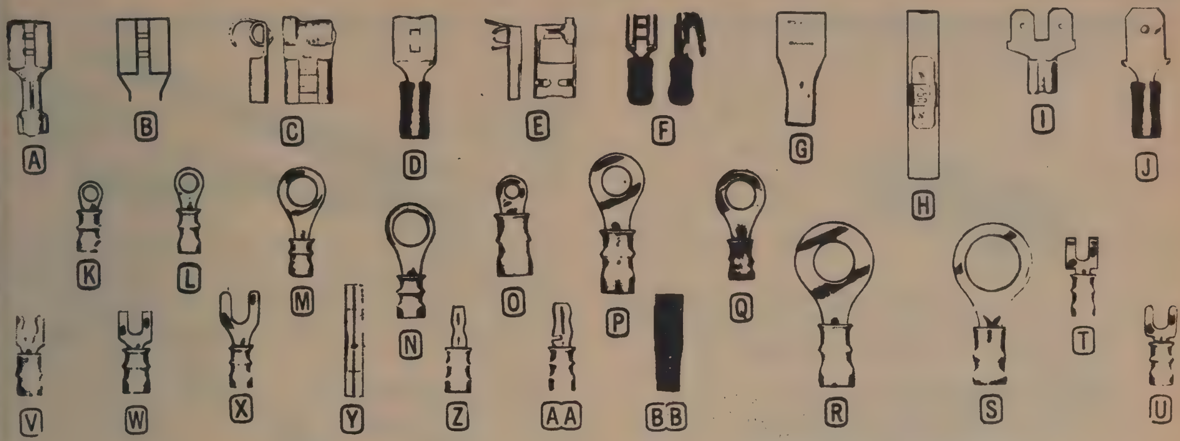

40-9
(2) W,X,Y,Z

48, 52 CONT.


36-10
(2) W,X,Y,Z
Similar to above
32-414
(2)
36-403 (2) **36-404** (2)

AMP SPECIAL INDUSTRIES

Solderless Connectors



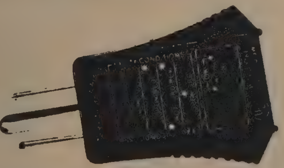
FASTON TERMINALS

The FASTON terminal consists of two mating parts—the tab and the receptacle, which lock together by friction to assure maximum contact area. All are tin-plated brass rated for operation to 300° F, except No. 41729 which is nickel-plated steel rated for operation to 600° F.

Wire Size	Tab Size	Fig.	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
RECEPTACLES					
18-14	.250″ × .032″	A	580	10	41729
16-14	.250″ × .032″	B	....	5	54427-1†
22-18	.250″ × .032″	B	....	...	54426-1
16-14	.187″ × .020″	B	....	...	54425-1
22-18	.187″ × .020″	B	....	...	54424-1
18-12	.250″ × .032″	C	....	...	41898
20-14	.250″ × .032″	C	....	...	42972-2
20-16	.187″ × .020″	C	....	...	42698-2
22-18	.250″ × .032″	D	621*	6	42599-2*
16-14	.250″ × .032″	D	622*	5	42332-2*
12-10	.250″ × .032″	D	510*	6	160314-2*
22-18	.205″ × .020″	D	....	...	42888-1
16-14	.205″ × .020″	D	....	...	42747-2
22-18	.187″ × .020″	D	528*	9	60972-2*
16-14	.187″ × .020″	D	535*	7	61697-1*
22-18	.110″ × .032″	D	....	...	60894-1
16-14	.110″ × .032″	D	....	...	61258-1
18-14	.250″ × .032″	E	....	...	60419-2
18-14	.250″ × .032″	G	624*	5	735159*
RECEPTACLE AND TAB					
16-14	.250″ × .032″	F	623*	5	160463-2*
TABS					
22-16	.250″ × .020″	J	626*	5	66023-2*
16-14	.250″ × .032″	J	625*	5	66024-2*
12-10	.250″ × .032″	J	581*	5	66025-2*
SPLICES					
22-10	.250″ × .032″	H	579*	5	1-321235-0*
TAB ADAPTER					
.....	.250″ × .032″	I	....	...	61765-2

*Insulated. †Plyr-Tap.

CIRCUIT ANALYZER



Power receptacle analyzer has indicator lights and a chart on both sides to describe the wiring condition for each lighting arrangement. Just plug it into the wall receptacle and these illuminated signals indicate reverse polarity, faulty wiring or missing grounds. Checks single-phase 115 and 125 volt circuits and two-phase, 3-wire outlets.
AMP Bulk No. 350659-1 Circuit Analyzer—Blister Pkg. No. 775

GENERAL USE TERMINALS

TYPE PLASTI-GRIP INSULATED RIBBED TERMINALS

Terminals have insulating sleeve with crimp-locating ribs molded in to locate the crimping position automatically. Approved by UL and CSA for operation to 600 V and 90° C.

Stud Size	Wire Size	Fig.	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
RING TERMINALS					
#6	22-16	K	513	9	55000-6
#8	22-16	L	514	9	55001-6
1/4″	22-16	M	547	7	55003-2
3/8″	22-16	N	590	7	55004-2
#8	16-14	O	517	9	55006-4
#10	16-14	P	551	8	55006-6
3/8″	16-14	N	587	7	55008-2
1/4″	16-14	Q	586	7	55039-2
5/16″	16-14	P	552	7	55039-4
#10	12-10	O	598	7	55013-9
1/4″	12-10	N	521	7	55014-3
5/16″	12-10	M	555	6	55014-6
3/8″	12-10	R	522	6	55016-3
1/2″	12-10	S	556	5	55016-6
FLANGED BLOCK SPADE TERMINALS					
#6	22-16	T	515	9	55020-2
#8	16-14	T	588	9	55030-2
#8	12-10	T	523	7	55032-2
SPADE TERMINALS					
#6	22-16	U	584	8	52949
#6	16-14	V	589	8	52955
#6	16-14	W	518	9	55027-2
#8	12-10	X	599	7	52962
BUTT SPLICES					
....	22-16	Y	516	9	324138
....	16-14	Y	520	7	328427
....	12-10	Y	524	7	329939
SNAP PLUGS					
.156″	16-14	Z	519	9	55037-1
.180″	16-14	AA	553	7	55038-1
SNAP RECEPTACLES					
.156″	22-16	BB	558	6	165399-1
.156″	16-14	BB	559	6	165429-1

WE ENCOURAGE YOU TO CONTACT ONE OF OUR SALESMEN FOR A COMPETITIVE PRICE ON YOUR NEXT ELECTRONICS ORDER.

AMP SPECIAL INDUSTRIES

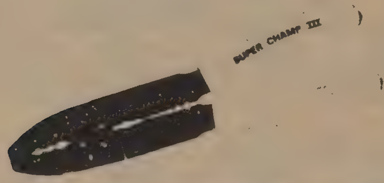
Connector Tools and Kits

SUPER CHAMP CRIMPING TOOL FOR INSULATED TERMINALS, LUGS, SPLICES

Super Champ

Crimps insulated terminals, lugs and splices in wire sizes #22 to #10 AWG. Color-coded wire size legends identify electromechanical crimp positions, and a special "INS" legend identifies mechanical insulation crimp.
AMP Bulk No. 47100-1 Crimping Tool—Blister Pkg. No. 563

SUPER CHAMP III CRIMPING TOOL FOR INSULATED AND UNINSULATED TERMINALS, LUGS, SPLICES



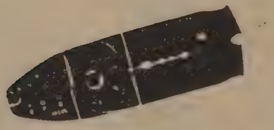
Has separate sets of dies for insulated and uninsulated terminals, lugs and splices in wire sizes #22 to #10 AWG. Also has a terminal locator to position insulated terminals during crimping and an in-nose cutter for tight locations.
AMP Bulk No. 29005-1 Crimping Tool—Blister Pkg. No. 501

SUPER CHAMP FT CRIMPING TOOL FOR FASTON PUSH-ON TERMINALS

SUPER CHAMP FT

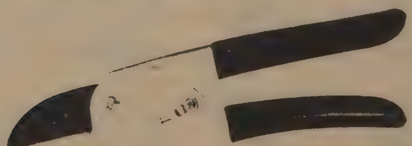
A special purpose tool for crimping uninsulated FASTON terminals in wire sizes #22 to #14. Includes precision dies for electromechanical crimp of terminal to wire. Special insulation die crimps strain relief tabs firmly in place without damaging insulation.
AMP Bulk No. 29564 Crimping Tool—Blister Pkg. No. 560

SERVICE TOOL 1



An all-purpose, universal crimping tool designed to crimp a wide variety of open and closed barrel terminals. It cuts bolts, strips wire, measures studs and wire. Made of carbon tool steel specially tempered for long life.
AMP Bulk No. 29004-1 Crimping Tool—Blister Pkg. No. 725

FLEXI-BLOCK CUTTING TOOL



AMP No. 604008-1—Cutting tool for Flexi-Block track or tape.

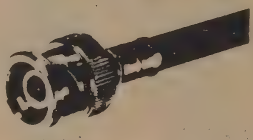
SUPER CHAMP BNC/UHF TOOL

A Super Champ hand tool especially designed for terminating BNC and UHF connectors. It crimps connectors on Belden 8281 cable (the most popular video cable). Tools for standard RG-58 and RG-59 cable also available.
AMP No. 604317-1—Super Champ Tool for Belden 8281.

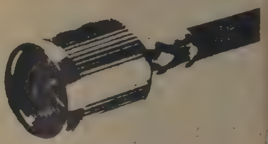
SUPER CHAMP COAXIAL CRIMPING TOOL

Designed for terminating BNC or UHF Series connectors.
AMP Bulk No. 601834-1, Pkg. No. 673—For BNC Series RG-58.
AMP Bulk No. 601834-2, Pkg. No. 674—For BNC Series RG-59.
AMP Bulk No. 601834-3, Pkg. No. 675—
For UHF Series RG-58/59.

COAXIAL CONNECTORS



BNC Series



UHF Series

AMP's crimp type UHF and BNC connectors deliver a greater margin of reliability when installing or repairing CB, UHF/FM radios or other communication equipment. A simple hand tool can be used for UHF or BNC applications. These crimped connectors resist vibration, corrosion and shock.

BNC SERIES, DUAL CRIMP TYPE COAXIAL CONNECTORS

AMP Bulk No. 225395-1, Pkg. No. 676—For RG-58.
AMP Bulk No. 225395-2, Pkg. No. 677—For RG-59.
Right-angle plugs, jacks, panel jacks and bulkhead jacks also available.

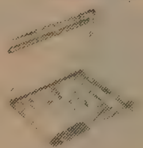
UHF SERIES COAXIAL CONNECTOR PLUG

AMP Bulk No. 601634-3, Pkg. No. 678—For RG-58 or RG-59. Crimp type plugs for RG-8 and RG-11 (PL259 type) also available.

COAX CONNECTOR FOR CB RADIOS AND MOBILE COMMUNICATION APPLICATIONS

AMP Bulk No. 226548-1, Pkg. No. 679—For RG-58 coaxial cable. No special tools required; only an ordinary pair of pliers. Reduces assembly time and cost. Provides reliable connection.

COAXIAL CONNECTOR KITS



UHF Kit

BNC Kit

AMP No. 1-601834-9 UHF Kit—Contains sturdy steel compartmented box, 20 UHF Series plugs (short collar) and Super Champ UHF coaxial connector crimping tool.
AMP No. 1-601834-6 UHF Kit—Contains sturdy steel compartmented box, 20 UHF Series plugs (long collar) and Super Champ UHF coaxial connector crimping tool.
AMP No. 1-601834-0 BNC Kit For RG-58 Cable—Contains sturdy steel box with four plastic containers, 20 BNC Series plugs and Super Champ BNC coaxial connector crimping tool.
AMP No. 1-601834-3 BNC Kit For RG-59 Cable—Contains sturdy steel box with four plastic containers, 20 BNC Series plugs and Super Champ BNC coaxial connector crimping tool.

MATE-N-LOK APPLIANCE AND GENERAL USE CONNECTORS

A versatile line of connectors with crimped, snap-in contacts designed for high-current circuits, maximum shock resistance and other adverse factors. Types and styles other than those listed are available on special request. Panel-mount connectors feature a positive lock housing to eliminate accidental disengagement of properly mated connectors. No mounting hardware is required; the connectors accommodate panel thicknesses of .025" to .055"; they are fully polarized for error free assembly; and they can be hotside mounted. The free hanging connectors have been designed to solve assembly problems where mounting is not possible or desirable. Contacts may be crimped onto the wire with either AMP SUPER CHAMP FT tool or the AMP Service Tool. Both panel mount and free hanging types accept wire sizes from 30 to 14 AWG. Contacts ordered separately, unless otherwise indicated.

Number of Circuits	AMP Blister Pkg. No.	Number per Pkg.	AMP Bulk Number	
			Pin	Socket
PANEL MOUNT				
3	...	...	1-480305-0	1-480304-0
4	...	...	1-480426-0	1-480425-0
6	619	†	1-480276-0	1-480273-0
9	620	†	1-480277-0	1-480274-0
12	...	...	1-480278-0	1-480275-0
15	...	...	1-480324-0	1-480323-0
PANEL MOUNT				
1	631	†	1-480350-0 1-480351-0*	1-480349-0
2	617	†	1-480319-0	1-480318-0
3	618	†	1-480305-0	1-480303-0

*Positive Lok housing. †Package includes contacts and two sets of pin and socket housings.

AMPLIMITE MINIATURE CONNECTORS

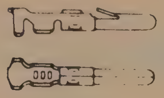
Miniature pin and socket connectors are ideally suited for application in computer peripheral equipment, modems and instrumentation and control equipment. Connectors feature the rear release plastic retention method in which retention tines form an integral part of the insert, permitting loaded contacts to be retained without the need for additional spring clips. These connectors will accept stamped and formed contacts to accommodate wire sizes 22-20 AWG and insulation diameters to .068". Contacts can be crimped onto wires with AMP No. 29004-1 Service Tool 1.

No. of Positions	AMP Blister Pkg. No.†	AMP Bulk Number		
		Plug Assembly	Receptacle Assembly	‡
STANDARD SIZE				
9	734	205204-1	205203-1	205729-1
15	728	205206-1	205205-1	205730-1
25	727	205208-1	205207-1	205718-1
37	...	205210-1	205209-1	205731-1
50	...	205212-1	205211-1	205732-1
MINIATURE SIZE FOR PC BOARDS				
25	739	206604-1	206584-1	....

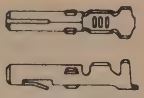
‡Package contains one each, plug, receptacle, shield and cable clamp assembly and contacts. †AMP Blister Pkg. No. for complete package, containing one each, plug, receptacle, shield and cable clamp assembly and contacts.

AMP Bulk No. 91067-2 Contact Insertion and Extraction Tool—Blister Pkg. No. 733

CONTACTS FOR MATE-N-LOCK CONNECTORS



PIN



SOCKET

Wire Size (AWG)	Insulation Range (In.)	AMP Number	
		Pin (.083" Dia.)	Socket
22-18	0.60-.100	60618-1	60617-1
20-14	.100-.130	60620-1	60619-1

AMP No. 465644-1 Extraction Tool—For both pin and socket contacts of MATE-N-LOCK connectors.

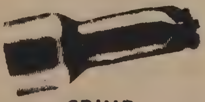
COMMUNICATIONS CONNECTORS

These connectors feature replaceable contacts that provide a fast, unique method of terminating unstripped, solid, and some stranded, wire plus multiconductor cable and certain types of ribbon and molded cable without need for wire preparation. The connector is fully intermateable and interchangeable with existing similar cable-type connectors. It can be used as a rack and panel, rear panel mounted, or a PC board connector. Each contact employs a dual slot design which, together with the special wire insertion tool, forms an integral part of the termination concept. Contacts to accept wire sizes other than those listed are available.

No. of Positions	Wire Size	AMP Blister Pkg. No.†	AMP Bulk Number	
			Plug	Receptacle
CABLE TO CABLE				
50	#24 solid	738	229912-1	....
50	#24 solid	737	....	229913-1

†Package contains all necessary hardware including screws and cable clamp or strain relief.

CLOSED END CONNECTORS

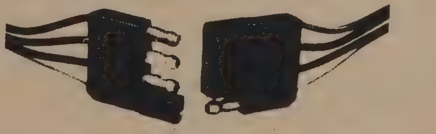


CRIMP

TWIST

CRIMP TYPE			TWIST TYPE	
Wire Size	AMP Blister Pkg. No.	AMP Bulk No.	Wire Size	AMP Bulk No.
22-14	531	35115	22-16	600699-1
18-10	539	35653	16-14	600699-2
18-8	...	320788	12-10	600699-3

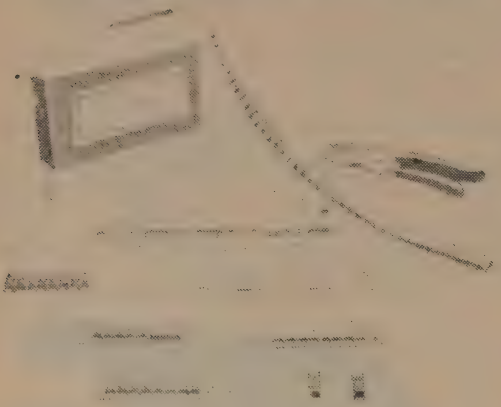
TRAILOR HARNESSES WITH 12" LEADS



Waterproof trailor harnesses for a quick, sure connection. Molded vinyl. Maintain solid electrical contact, even under the strongest vibration.

Description	AMP Bulk No.	AMP Blister Pkg. No.
2-Pole with 12" leads; 1 pair	2-601903-1	709
3-Pole with 12" leads; 1 pair	2-601903-4	708
4-Pole with 12" leads; 1 pair	0-601903-8	707

FLEXI-BLOCK TERMINAL BLOCK SYSTEM



This time-saving system lets you produce customized terminal blocks to any desired length for panel wiring applications. Three basic parts replace dozens of different terminal blocks. Individual terminal cells are mounted on a flexible tape. Just cut off the desired number of cells, slide them into the track, snap in the end stops and you have the exact length assembly you need. The matching track fits both flat and curved surfaces. The tapes are packaged in dispenser cartons of 100 or 500 terminals. A special cutting tool is available for cutting the track and the tape.

AMP Bulk No. 601883-1, Pkg. No. 600—Kit includes 25 blocks, two 12-in. tracks and 12 end stops.

AMP No. 1-604101-1—Standard package of 100 blocks on tape, in dispenser carton. Two screws per block (assembled).

AMP No. 2-604101-1—Standard package of 500 blocks on tape, in dispenser carton. Two screws per block (assembled).

AMP No. 1-604100-1—Same as 1-604-101-1, except without screws.

AMP No. 1-601805-1—One track, 3-ft. long (accommodates 80 positions plus two end stops).

AMP No. 1-601805-0—One track, 6-ft. long (accommodates 160 positions plus two end stops).

AMP No. 601805-9—End stop (two required per assembly).

AMP No. 601983-2—Screw, No. 6-32, 5/16-in. long, nickel-plated brass (standard).

AMP No. 601804-8—Kit with 100 No. 1-604101-1, 2 No. 1-601805-1 and 25 No. 604111-1

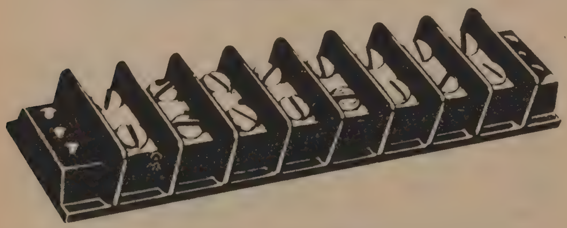
MODULAR FLEXI-BLOCK TERMINAL BLOCKS

New system handles larger sizes of wire. Just clip desired number of blocks off a roll of 100 or 500 blocks, slide them into a plastic track and snap-in the end stops. Also available with optional flanged track.

AMP No. 604007-1—For No. 6 wire. Contains 100 blocks, 50 end stops and 75-in. track.

AMP No. 604336-1—For No. 8 wire. Contains 100 blocks, 50 end stops and 75-in. track.

TERMINAL BLOCKS



Solid, one-piece, twin-screw units produced for superior electrical and mechanical characteristics. Internally molded plugs eliminate separate insulator strips under the block. Terminal tabs are available in flat, single, double end, 45° or 90° types in matched or mixed combinations. Matching solderless terminals are available in ring, spade, hook, slotted spring spade, rectangular tongues, flanged spade and the labor saving captive screw terminal.

No. of Positions	Capacity Amps	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
2	20	606	1	601716-2
4	20	607	1	601716-4
8	20	608	1	601716-8
10	20	609	1	1-601716-0
14	20	610	1	1-601716-4
2	30	601	1	601717-2
4	30	602	1	601717-4
8	30	603	1	601717-8
10	30	604	1	1-601717-0
14	30	605	1	1-601717-4

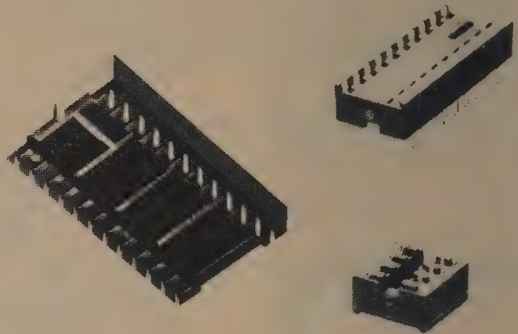
DIP SOCKETS

Sockets accept rectangular leads up to .015" by .030".

No. of Leads	Profile	Terminals	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
14	Standard	W.W.	826	2	1-380863-1
16	Standard	W.W.	827	2	1-380882-1
14	Low	Solder	828	2	583527-1
16	Low	Solder	829	2	583529-1
8	Low	Solder	830	2	583640-1
24	Low	Solder	831	1	583770-1*
28	Low	Solder	832	1	530018-3*

*).600" row-to-row spacing; all others 0.300" spacing.

AMP DIPLOMATE LOW PROFILE DIP SOCKETS



Low profile DIP sockets available with pre-tinned beryllium copper or pre-tinned phosphor bronze PC terminals, .108" or .128" long, on .100" centers. **Case Height: .216".**

Number of Positions	Dimensions				AMP Numbers	
	A	B	C	D	*	†
8	.395	.394	.300	.300	640463-1	640463-3
14	.695	.394	.300	.300	640357-1	640357-3
16	.795	.394	.300	.300	640358-1	640358-3
18	.895	.394	.300	.300	640359-1	640359-3
20	.995	.394	.300	.300	640464-1	640464-3
22	1.095	.494	.400	.400	640360-1	640360-3
24	1.195	.694	.600	.600	640361-1	640361-3
28	1.395	.694	.600	.600	640362-1	640362-3
40	1.995	.694	.600	.600	640379-1	640379-3

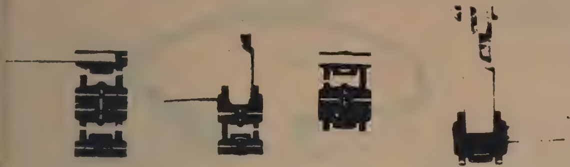
*.108" pre-tinned beryllium copper terminals. †.128" pre-tinned phosphor bronze terminals.

ACTIVE OPTICAL WAVE GUIDE LINK KIT

Kit contains fine quality AMP fiber optic products plus solid-state components for making optical links. Printed circuit boards and complete assembly instructions provided.

AMP No. 227042-1 Active Optical Wave Guide Link Kit

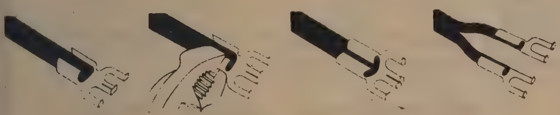
ELECTRO-TAP CONNECTOR



For 22-14 AWG solid or stranded, insulated wire. Simple, two step operation eliminates cutting, stripping, tapping and soldering. Just insert "tap" wire and squeeze with ordinary pliers. Then fold hinged body around "run" wire and squeeze again. Within 15 seconds or less, you have a tap connection that's electrically and mechanically strong.

Wire Size Range (AWG)	Max. Wire Insul. Dia.	AMP Blister Pkg. No.	AMP Bulk No.	UL Approved Wire Size
22-18	.160"	700	53440-2	20-18 solid; 18 stranded
18-14	.160"	701	53440-1	18 solid; 16-14 stranded

TV ANTENNA TERMINALS

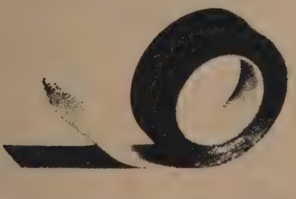


No special tools needed; just an ordinary pair of pliers.
AMP Bulk No. 601725-1, Pkg. No. 411—TV Antenna Terminals.

ROTARY ZIF-CONNECTOR FEATURES ZERO INSERTION FORCE

Turn the lever on this unique device and contacts pull away to allow PC board to slide into the connector. Increases life of PC board to 5,000 insertions or more. Also permits higher contact population and more latitude in layout because board can enter connector from top or side. With side entry, shorter electrical paths can reduce board size. For information on styles, sizes and specific part numbers, see your local distributor.

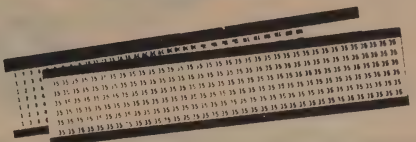
AMPLISEAL HEAT SHRINKABLE TAPE



A heat shrinkable, plastic base tape, laminated with a heat-sensitive sealing compound. This combination provides a unique product which may be used to provide electrical insulation and/or isolation, and to give adequate physical protection from abrasion and impact. Available in roll form and has a backing (release paper) which protects the sealant from dirt and from bonding to itself, prior to application.

Width	Thickness	Length	Bulk Part No.	Pkg. No.
3/4"	.008"	10 ft.	603300-4	864
1"	.020"	60 ft.	52625	865

WIRE MARKER CARDS



Wire markers speed wire hook-ups and harness assembly. Markers handle wire sizes up to 10 AWG. **Card Size:** 2" × 9". AMP Bulk Nos. and Pkg. Nos. include 5 cards.

AMP Bulk No.	AMP Pkg. No.	Description
3-601775-6	776	Letters A-Z
6-601775-4	777	AC, DC, Pos., Neg., GND and Nos. 1-15
601775-1	778	Numerals 1-33

AMP LATCH RIBBON CABLE CONNECTORS

Available with termination receptacle, paddle board card edge or plug or pin type connectors, for 26, 34, 40 or 50 position cable. Feature unique cover latching devices which assure that cover will stay in place, no matter how many times connector is plugged together or pulled apart. Live electrical tests can be made with cover in place. Items listed are a partial listing; many other styles and sizes available.

Positions	AMP Bulk No.	Positions	AMP Bulk No.
STANDARD PRESS WITH COVER RECEPTACLES KIT			
26	88379-5	40	88379-7
34	88379-6	50	88379-8
EDGE CONNECTORS WITHOUT MTG. EARS			
26	88373-5	40	88373-2
34	88373-3	50	88373-1
PADDLE BOARD PLUG "SPECIAL CENTER"			
26	88219-2	50	88219-4
34	88219-3		
DIP PLUG			
	88280-1		88281-1
PIN CONNECTOR WITHOUT MTG. EARS			
26	88481-5	40	88481-7
34	88481-6	50	88481-8
EDGE CONNECTOR WITH ROUND HOLE MTG. EARS			
26	88372-5	40	88372-7
34	88372-6	50	88372-8
PIN CONNECTORS WITH MTG. EARS			
26	88480-5	40	88480-7
34	88480-6	50	88480-8

AMP Bulk Number 91134-1—Hand Tool for AMP Latch Ribbon Cable Connectors.

ALLIGATOR CLIPS

Available in general purpose and miniature types for wire sizes 22 to 16. Insulating boots available in black and red.

Description	AMP General Purpose Bulk No.	Pkg. No.*	AMP Miniature Bulk No.	Pkg. No.*
Alligator Clip	600698-1	702	600695-1	704
Black Insulating Boot	1-600698-1		1-600695-1	
Red Insulating Boot	1-600698-2		1-600695-2	

*Package includes alligator clip and red and black insulating boots.

AMP Bulk No. 601882-4, Pkg. No. 703—Clip leads, 48-in. long. Two pieces with alligator clips installed.

AMP SPECIAL INDUSTRIES Switches and Tubing

PRINTED CIRCUIT ROTARY SWITCHES

These switches are designed for use in programming electronic and mechanical circuits in machine tools, test equipment and computers.

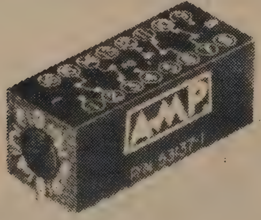
Description	AMP Blister Pkg. No.	No. per Pkg	AMP Bulk No.
Single pole, bar knob cap	920	1	2-435097-1
BCD output, bar knob cap	921	1	435123-1

DUAL-IN-LINE SWITCHES

DIP switches, specially designed to mount on a PC board, provide a reliable means of programming electrical or electronic equipment. All switches are packaged with a cover.

Form	No. of Positions	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
SPST	4	932	1	435640-2
SPDT	4	933	1	435470-3
DPST	4	930	1	435469-3
SPST	5	925	1	435640-3
SPST	6	928	1	435640-4
SPST	7	929	1	435640-1
SPST	8	926	1	435640-5
SPST	9	931	1	435640-6
SPST	10	924	1	435640-7
SPST	12	938	1	3-435640-2

HEXIDECIMAL SWITCH



The hexadecimal switch is a 16-pin DIP package with 4 form C switches which are operated by an 8-4-2-1 binary encoded cam. A screwdriver slot in the end turns the cam in either direction to the desired "positive detent" setting.
AMP Bulk No. 53137-1 Hexadecimal Switch—
Blister Pkg. No. 927

MINI-MATRIX SWITCH

The Mini-Matrix switch is basically a multiplicity of manually operated slide switches which select cross-points in a matrix. It is ideally suited for use in logic level matrix switching applications. It features an extremely compact design and a very low profile.

AMP Bulk No. 435723-1, Pkg. No. 939—7 × 10 positions.
AMP Bulk No. 435723-2, Pkg. No. 950—10 × 10 positions.

COAXIAL CABLE ASSEMBLIES

AMP Bulk No.	AMP Blister Pkg. No.	Quantity/Pkg.	Length* (ft.)
50-OHM UHF PLUG TO UHF PLUG			
600593-1	663	1	1
600593-3	651	1	3
600593-5	652	1	5
50-OHM BNC PLUG TO UHF PLUG			
600591-1	657	1	1
600591-3	658	1	3
600591-5	656	1	5
50-OHM BNC PLUG TO BNC PLUG			
600590-3	668	1	3
600590-5	662	1	5
600590-7	666	1	10

*Other lengths available on request.

THIN WALL HEAT SHRINK TUBING

Before
After

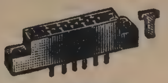
Tubing is excellent for wiring applications where insulation and strain relief are important. All tubing meets MIL-1-23053B/5, AMS 3636B and AMS 3637B specifications. A hot air source, such as an electric heat gun, is recommended; however, any heat source providing at least 250° F may be used. Tubing has a 2 to 1 shrink ratio.

Original Diameter	Length	AMP Blister Pkg. No.	No. per Pkg.	AMP Bulk No.
WHITE				
3/64"	4 ft.	...	...	603360-1
1/16"	4 ft.	...	...	603361-1
3/32"	4 ft.	...	...	603362-1
1/8"	4 ft.	...	...	603363-1
3/16"	4 ft.	...	...	603364-1
1/4"	12 in.	857	8	603365-1
3/8"	12 in.	859	6	603366-1
1/2"	12 in.	858	4	603367-1
3/4"	4 ft.	...	...	603368-1
1"	4 ft.	...	...	603369-1
BLACK				
3/64"	4 ft.	...	...	603321-1
1/16"	4 ft.	...	...	603322-1
3/32"	4 ft.	...	...	603323-1
1/8"	4 ft.	...	...	603324-1
3/16"	4 ft.	...	...	603325-1
1/4"	4 ft.	...	...	603326-1
3/8"	4 ft.	...	...	603327-1
1/2"	4 ft.	...	...	603328-1
3/4"	4 ft.	...	...	603329-1
1"	4 ft.	...	...	603330-1
RED				
1/2"	12 in.	...	...	603387-1
3/4"	4 ft.	...	...	603388-1
1"	4 ft.	...	...	603389-1

AMP Bulk No. 601829-1, Pkg. No. 855—Heat shrink tubing assortment. 9 pieces. assorted sizes, 6" long. Black.
AMP Bulk No. 601832-1, Pkg. No. 856—Heat shrink tubing assortment. 31 pieces. assorted sizes. 6" long, assorted colors.
AMP Bulk No. 601957, Pkg. No. 705—3/4" original diameter. 4 pieces, 12" long. White.

50-6A-20
50- 6A-20M-1

50-12A-30
50- 12A-30M-1



50-12B-10
50- 12B-10M-1

Printed circuit connectors designed for minimum printed circuit card wear, low insertion force and positive contact with 1/16″ printed circuit boards. All units utilize bifurcated contacts permitting two flexing surfaces instead of one for positive contact. Bifurcated contacts are especially recommended for added contact reliability where vibration or printed circuit board irregularities would otherwise cause trouble. Types meeting MIL spec MIL-C-21097 are also available as indicated. **Mounting:** Available with 0.128″ dia. holes for standard mounting, molded-in bushings or floating bushings. **Insulator Material:** Green glass-filled diallyl phthalate type SDG-F per MIL-M-14. **Contacts:** Phosphor bronze with 30 micro-inches gold finish; beryllium copper with 50 micro-inches gold to meet MIL-C-21097 as specified. Contacts .156″ on centers. **Polarizing Keys:** Ordered separately as follows: No. 50-PK-1 for in-contact polarization made of diallyl phthalate; No. 50-PK-2 for between-contact polarization made of glass epoxy. **Voltage Rating:** 830 VAC rms at sea level. **Current:** Rated 5.0 amps. **Contact Resistance:** 0.005 ohm at rated current. **Insulation Resistance:** 5,000 megohms. **Temperature Cycling:** 5 continuous cycles per Method 107B, Test Condition B. Beryllium copper, −65° C to +125° C; phosphor bronze, −65° C to −105° C. UL recognized.

COMMERCIAL TYPES

SINGLE READOUT WITH .128″ MTG. HOLES

Solder eyelet termination.

Cinch Number	Contact Pos.	★Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
50-6A-20	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-10A-20	10	3.10	2.55	2.16	1.82	1.76
50-12A-20	12	3.53	3.01	2.45	2.03	1.94
50-15A-20	15	4.13	3.36	2.89	2.40	2.27
50-18A-20	18	4.73	3.88	3.30	2.74	2.63
50-22A-20	22	5.55	4.57	3.90	3.21	3.10
50-25A-20	25	6.60	5.38	4.62	3.82	3.65

5/32″ DIP solder termination.

50-6B-10	6	$2.29	$1.86	$1.65	$1.31	$1.24
50-10B-10	10	3.10	2.55	2.16	1.82	1.76
50-15B-10	15	4.13	3.36	2.89	2.40	2.27
50-18B-10	18	4.73	3.88	3.30	2.74	2.63
50-22B-10	22	5.55	4.57	3.90	3.21	3.10
50-25B-10	25	6.60	5.38	4.62	3.82	3.65

15/64″ DIP solder termination.

50-6S-10	6	$2.29	$1.86	$1.65	$1.31	$1.24
50-10S-10	10	3.10	2.55	2.16	1.82	1.76
50-12S-10	12	3.53	3.01	2.45	2.03	1.94
50-15S-10	15	4.13	3.36	2.89	2.40	2.27
50-18S-10	18	4.73	3.88	3.30	2.74	2.63
50-22S-10	22	5.55	4.57	3.90	3.21	3.10
50-25S-10	25	6.60	5.38	4.62	3.82	3.65

DOUBLE READOUT, .200″ ROW SPACING, .128″ MTG. HOLES

Conventional solder eyelet termination.

50-12A-30	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-20A-30	10	3.10	2.55	2.16	1.82	1.76
50-25A-30	12	3.53	3.01	2.45	2.03	1.94
50-30A-30	15	4.13	3.36	2.89	2.40	2.27
50-36A-30	18	4.73	3.88	3.30	2.74	2.67
50-44A-30	22	5.55	4.57	3.90	3.21	3.10
50-50A-30	25	6.58	5.38	4.62	3.82	3.65

5/32″ DIP solder termination.

50-12B-10	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-20B-10	10	3.10	2.55	2.16	1.82	1.76
50-24B-10	12	3.53	3.01	2.45	2.03	1.94
50-30B-10	15	4.13	3.36	2.89	2.40	2.27
50-36B-10	18	4.73	3.88	3.30	2.74	2.67
50-44B-10	22	5.55	4.57	3.90	3.21	3.10
50-50B-10	25	6.58	5.38	4.62	3.82	3.65

15/64″ DIP solder termination.

50-12S-20	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-20S-20	10	3.10	2.55	2.16	1.82	1.76
50-24S-20	12	3.53	3.01	2.45	2.03	1.94
50-30S-20	15	4.13	3.36	2.89	2.40	2.27
50-36S-20	18	4.73	3.88	3.30	2.74	2.63
50-44S-20	22	5.55	4.57	3.90	3.21	3.10
50-50S-20	25	7.62	6.23	5.32	4.37	4.18

DOUBLE READOUT, .140″ ROW SPACING, DIP SOLDER TERMINATION

.128″ mounting holes.

Cinch No.	Contact Pos.	★Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
50-12S-30-2	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-20S-30-2	10	3.10	2.55	2.16	1.82	1.76
50-24S-30-2	12	3.53	3.01	2.45	2.03	1.94
50-30S-30-2	15	4.13	3.36	2.89	2.40	2.27
50-36S-30-2	18	4.73	3.88	3.30	2.74	2.67
50-44S-30-2	22	5.55	4.57	3.90	3.21	3.10
50-50S-30-2	25	6.58	5.38	4.62	3.82	3.65

Without mounting ears.

50-12S-30-1	6	$2.29	$1.86	$1.61	$1.31	$1.24
50-20S-30-1	10	3.10	2.55	2.16	1.82	1.76
50-24S-30-1	12	3.55	3.01	2.45	2.03	1.94
50-30S-30-1	15	4.13	3.36	2.89	2.40	2.27
50-36S-30-1	18	4.73	3.88	3.30	2.74	2.67
50-44S-30-1	22	5.55	4.57	3.90	3.21	3.10
50-50S-30-1	25	6.58	5.38	4.62	3.82	3.65

MIL-C-21097 PC CONNECTORS

SINGLE READOUT

Solder eyelet termination, .128″ mounting holes.

Cinch Number 50-	MIL No. M21097/	Contact Pos.	★Net Each, Lots of				
			1-24	25-49	50-99	100-249	250 Up
6A-20M-1	21-001	6	$4.05	$3.50	$3.13	$2.81	$2.74
10A-20M-1	21-037	10	5.99	5.22	4.74	4.24	4.11
15A-20M-1	21-073	15	8.41	7.38	6.70	6.01	5.89
18A-20M-1	21-109	18	9.90	8.71	7.92	7.11	6.95
22A-20M-1	21-145	22	11.84	10.42	9.48	8.53	8.37

Solder eyelet termination, molded-in bushings.

6A-20MB-1	21-004	6	$6.04	$5.29	$4.54	$4.20	$3.68
10A-20MB-1	21-040	10	9.19	7.80	6.89	5.94	5.75
15A-20MB-1	21-076	15	11.51	9.02	8.79	7.73	7.48
18A-20MB-1	21-112	18	12.87	11.11	9.92	8.70	8.46
22A-20MB-1	21-148	22	14.70	12.73	11.41	10.09	9.81

Solder eyelet termination, floating bushings.

6A-20MFB-1	21-007	6	$4.92	$4.21	$3.72	$3.23	$3.13
10A-20MFB-1	21-043	10	6.85	5.93	5.31	4.66	4.56
15A-20MFB-1	21-079	15	9.27	8.06	7.29	6.48	6.32
18A-20MFB-1	21-115	18	10.75	9.39	8.46	7.58	7.36
22A-20MFB-1	21-151	22	12.65	11.09	10.05	9.01	8.81

DOUBLE READOUT, .200″ ROW SPACING

Solder eyelet termination, .128″ mounting holes.

Cinch Number 50-	MIL No. M21097/	Contact Pos.	★Net Each, Lots of				
			1-24	25-49	50-99	100-249	250 Up
12A-30M-1	21-019	6	$3.85	$3.30	$2.93	$2.61	$2.54
20A-30M-1	21-055	10	5.67	4.90	4.42	3.92	3.79
30A-30M-1	21-091	15	7.93	6.90	6.22	5.53	5.41
36A-30M-1	21-127	18	9.31	8.09	7.33	6.53	6.36
44A-30M-1	21-163	22	11.13	9.71	8.77	7.84	7.66

Solder eyelet termination, molded-in bushings.

12A-30MB-1	21-022	6	$7.16	$5.95	$5.16	$4.35	$4.18
20A-30MB-1	21-058	10	8.86	7.48	6.57	5.62	5.43
30A-30MB-1	21-094	15	11.03	9.41	8.31	7.25	7.00
36A-30MB-1	21-130	18	12.28	10.52	9.33	8.11	7.87
44A-30MB-1	21-166	22	13.99	12.02	10.70	9.38	9.10

Solder eyelet termination, floating bushings.

12A-30MFB-1	21-025	6	$4.72	$4.01	$3.52	$3.03	$2.93
20A-30MFB-1	21-061	10	6.53	5.61	4.99	4.34	4.24
30A-30MFB-1	21-097	15	8.79	7.58	6.81	6.00	5.84
36A-30MFB-1	21-133	18	10.16	8.80	7.87	6.99	6.77
44A-30MFB-1	21-169	22	11.94	10.38	9.34	8.30	8.10

Dip solder termination, .128″ mounting holes.

12B-10M-1	21-028	6	$3.82	$3.27	$2.90	$2.58	$2.51
20B-10M-1	21-064	10	5.61	4.84	4.36	3.86	3.73
30B-10M-1	21-100	15	7.84	6.81	6.13	5.44	5.32
36B-10M-1	21-136	18	9.22	8.00	7.24	6.44	6.27
44B-10M-1	21-172	22	11.01	9.59	8.65	7.72	7.54

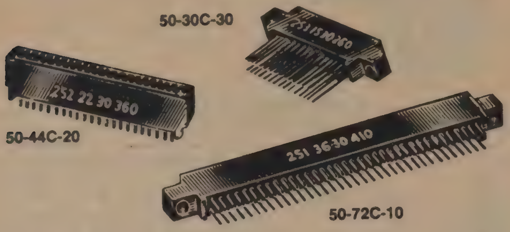
ACCESSORIES FOR EDGE CONNECTORS

POLARIZING KEYS

Cinch No.	Polarization	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-Up
50-PK-1	In-contact	$0.014	$0.12	$0.10	$0.08	$0.07
50-PK-2	Between contact	.12	.10	.09	.08	.07
50-PK-2M	Between contact—MIL type	.12	.10	.09	.08	.07

★DUE TO THE INSTABILITY IN THE COST OF GOLD, ALL PRICES FOR CONNECTORS HAVING GOLD PLATED TERMINALS WILL VARY. CHECK US FOR THE LATEST QUOTATIONS.

PRECISION DOUBLE READOUT EDGE CONNECTORS WITH .100″ CONTACT CTRS., $^1/_{16}$″ BOARDS



Unique bifurcated cantilever contact construction provides simple, dependable design capable of handling $^1/_{16}$″ thick printed circuit boards. Contacts pre-loaded against an insulator stop to provide gap uniformity and assure rapid build-up of force to the PC board. Contacts are high-tensile brass alloy, plated with 30 micro-inches of gold over 50 micro-inches of copper in contact area and 10 micro-inches minimum gold on remainder of contact. Insulation, glass-filled diallyl phthalate. Type SDG-F per MIL-M-14. **Polarizing Key: No. 50-PK-3,** ordered separately. **Card Guide: No. 50-GP-1,** must also be ordered separately.

WITH CONVENTIONAL CINCH CONTACT NUMBERING

Solder termination.

Cinch No.*	Contact Pos.	*Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-Up
50-30C-10	15	$5.84	$4.75	$4.07	$3.32	$3.18
50-44C-10	22	6.99	5.71	4.90	4.05	3.87
50-72C-10	36	9.31	7.67	6.58	5.52	5.24
50-80C-10	40	9.88	8.16	6.98	5.80	5.56
50-86C-10	43	10.50	8.64	7.44	6.20	5.93
50-100C-10	50	11.67	9.63	8.28	6.95	6.68

*To order dip solder terminals, change suffix −10 to −20; same prices apply.

.025″ sq. Wire Wrap termination.

50-30C-30	15	$5.97	$4.89	$4.21	$3.49	$3.33
50-44C-30	22	7.17	5.90	5.04	4.21	4.03
50-72C-30	36	9.54	7.92	6.82	5.75	5.49
50-80C-30	40	10.10	8.39	7.22	6.09	5.85
50-86C-30	43	10.78	8.91	7.70	6.47	6.21
50-100C-30	50	12.07	9.99	8.64	7.26	6.96

WITH REVERSED CONTACT NUMBERING

Solder termination.

Cinch No.*	Contact Pos.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-Up
50-30C-10-1	15	$5.84	$4.75	$4.07	$3.32	$3.18
50-44C-10-1	22	6.99	5.71	4.90	4.05	3.87
50-72C-10-1	36	9.31	7.67	6.58	5.52	5.24
50-80C-10-1	40	9.88	8.16	6.98	5.80	5.56
50-86C-10-1	43	10.50	8.64	7.44	6.20	5.93
50-100C-10-1	50	11.67	9.63	8.28	6.95	6.68

*To order dip solder tails, change −10 to −20; same prices apply.

.025″ sq. Wire Wrap termination.

50-30C-30-1	15	$5.97	$4.89	$4.21	$3.49	$3.33
50-44C-30-1	22	7.17	5.90	5.04	4.21	4.03
50-72C-30-1	36	9.54	7.92	6.82	5.75	5.49
50-80C-30-1	40	10.10	8.39	7.22	6.09	5.85
50-86C-30-1	43	10.78	8.91	7.70	6.47	6.21
50-100C-30-1	50	12.07	9.99	8.64	7.26	6.96

CARD GUIDE FOR .100″ AND .156″ TYPES

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250-Up
50-GP-1	$0.55	$0.45	$0.38	$0.31	$0.30

POLARIZING KEY

50-PK-3	$0.14	$0.12	$0.10	$0.08	$0.07

.156″ CONTACT CENTERS CARDCON™ P.C. DOUBLE READOUT EDGE CONNECTORS FOR $^1/_{16}$″ BOARDS

Ideal for applications involving vibration or board irregularities. Bifurcated, semi-bellows contacts provide added contact reliability. **Voltage Rating:** 1800 VAC rms at sea level. **Current Rating:** 5 amps. **Contact Resistance:** 0.006 ohms max. **Insulation Resistance:** 5000 megohms. **Contact Material:** Alloy 260 spring brass with 50 micro-inches copper and 20 micro-inches gold in contacting area. Gold flash on solder tails. **Polarizing Key:** No. 50-PK-2 Between contacts or 50-PK-4 in-contact ordered separately. **Mounting:** Ears with hole for 4-40 screw or no mounting ears.

Cinch No.	Contact Pos.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-Up
.200″ BETWEEN ROWS—PLAIN MOUNTING HOLE—.156″ LONG TAIL						
50-12SN-1	6	$1.43	$1.16	$0.98	$0.80	$0.76
50-20SN-1	10	2.07	1.67	1.42	1.16	1.10
50-24SN-1	12	2.29	1.86	1.57	1.29	1.24
50-30SN-1	15	2.66	2.34	1.98	1.63	1.55
50-36SN-1	18	2.95	2.41	2.04	1.68	1.60
50-44SN-1	22	3.29	2.68	2.28	1.88	1.80
50-48SN-1	24	3.71	3.01	2.55	2.09	2.01
50-50SN-1	25	3.77	3.08	2.61	2.15	2.07
.140″ BETWEEN ROWS—PLAIN MOUNTING HOLE—.125″ LONG TAIL						
50-12SN-2	6	$1.43	$1.16	$0.98	$0.80	$0.76
50-20SN-2	10	2.07	1.67	1.42	1.16	1.10
50-24SN-2	12	2.29	1.86	1.57	1.29	1.24
50-30SN-2	15	2.66	2.34	1.98	1.63	1.55
50-36SN-2	18	2.95	2.41	2.04	1.68	1.60
50-44SN-2	22	3.29	2.68	2.28	1.88	1.80
50-48SN-2	24	3.71	3.01	2.55	2.09	2.01
50-50SN-2	25	3.77	3.08	2.61	2.15	2.07
.200″ BETWEEN ROWS—WITHOUT EARS—.156″ LONG TAIL						
50-12SN-3	6	$1.43	$1.16	$0.98	$0.80	$0.76
50-20SN-3	10	2.07	1.67	1.42	1.16	1.10
50-24SN-3	12	2.29	1.86	1.57	1.29	1.24
50-30SN-3	15	2.66	2.34	1.98	1.63	1.55
50-36SN-3	18	2.95	2.41	2.04	1.68	1.60
50-44SN-3	22	3.29	2.68	2.28	1.88	1.80
50-48SN-3	24	3.71	3.01	2.55	2.09	2.01
50-50SN-3	25	3.77	3.08	2.61	2.15	2.07
.140″ BETWEEN ROWS—WITHOUT EARS—.125″ LONG TAIL						
50-12SN-4	6	$1.43	$1.16	$0.98	$0.80	$0.76
50-20SN-4	10	2.07	1.67	1.42	1.16	1.10
50-24SN-4	12	2.29	1.86	1.57	1.29	1.24
50-30SN-4	15	2.66	2.34	1.98	1.63	1.55
50-36SN-4	18	2.95	2.41	2.04	1.68	1.60
50-44SN-4	22	3.29	2.68	2.28	1.88	1.80
50-48SN-4	24	3.71	3.01	2.55	2.09	2.01
50-50SN-4	25	3.77	3.08	2.61	2.15	2.07

WIRE WRAP TERMINAL SERIES
.156″ ON CENTERS

Single-level Wire Wrap tails .031″ × .062″.

Cinch No.*	Contact Pos.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250-Up
50-20E-10-1	10/20	$5.34	$4.40	$3.78	$3.16	$3.05
50-30E-10-1	15/30	5.86	4.89	4.27	3.63	3.49
50-36E-10-1	18/36	6.61	5.50	4.84	4.11	3.94
50-44E-10-1	22/44	7.94	6.68	5.78	4.93	4.76
50-50E-10-1	25/50	8.44	7.09	6.21	5.32	5.11
50-60E-10-1	30/60	9.40	7.93	6.95	5.99	5.78

Also available in 2 and 3 levels; same prices apply. To order: change **E** to **F** for 2-level or to **G** for 3-level.

WITH TAIL TWISTED BELOW INSULATOR

Single-level Wire Wrap tails .031″ × .062″.

50-44E-10	22/44	$7.79	$6.53	$5.63	$4.78	$4.61

Double-level Wire Wrap tails .031″ × .062″.

50-44F-10	22/44	$7.89	$6.63	$5.73	$4.88	$4.71

Triple-level Wire Wrap tails .031″ × .062″.

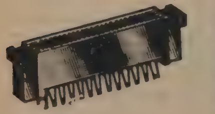
50-44G-10	22/44	$8.05	$6.79	$5.89	$5.04	$4.87

.125″ ON CENTERS

Double-level Wire Wrap tails .025″ × .025″.

50-80W-20	44	$15.18	$12.70	$11.05	$9.37	$9.04

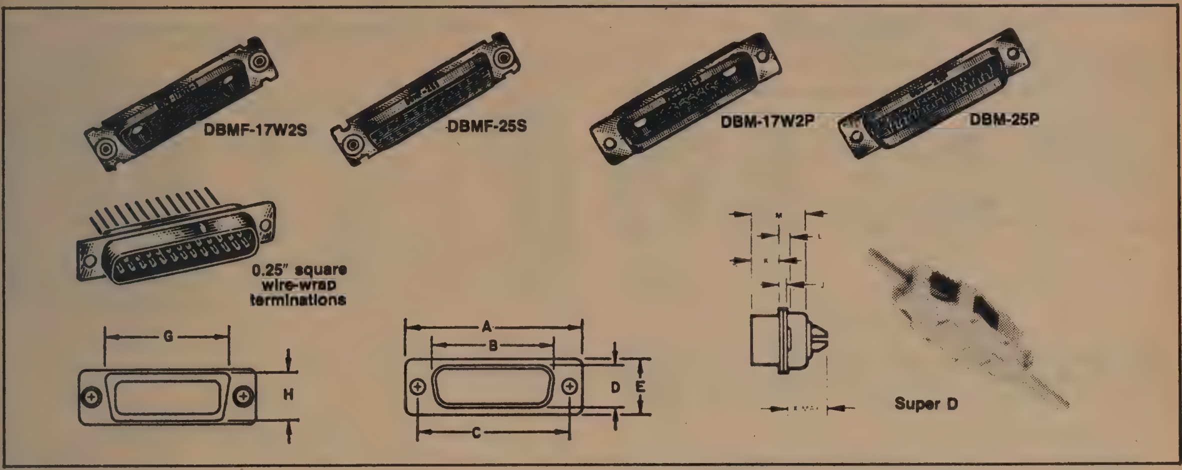
TYKON MINIATURE EDGE CONNECTORS



High density edge connectors with .050″ centers for use with double-sided .062″ printed circuit boards. Solder termination. Insulator is diallyl phthalate, type SDG-F per MIL-M-14F. Contacts are beryllium copper with .00003″ gold plate per MIL-G-45204 Type II. Carbon steel mounting clip for use in semi-flush printed circuit mounting, and cellulose acetate polarizing key available as separate items.

Cinch Number 50-	Cont. Pos.	No. of Cont.	*Net Each, Lots of				
			1-24	25-49	50-99	100-249	250-Up
12A-40	6	12	$6.13	$4.93	$4.14	$3.37	$3.19
20A-40	10	20	7.61	6.15	5.20	4.21	4.01
30A-40	15	30	9.48	7.68	6.46	5.23	5.00
40A-40	20	40	10.98	9.18	7.74	6.31	6.04
50A-40	25	50	13.17	10.70	9.00	7.39	7.02
MC	Mounting Clip		.44	.32	.28	.27	.25
PK	Polarizing Key		.34	.27	.26	.24	.21

★DUE TO THE INSTABILITY IN THE COST OF GOLD, ALL PRICES FOR CONNECTORS HAVING GOLD PLATED TERMINALS WILL VARY. CHECK US FOR THE LATEST QUOTATIONS.



Five series in five basic shell sizes cover a full array of contact configurations for most rack and panel applications. Keystone shape assures proper polarization. All series intermate and intermount. Friction coupling, locking accessories and floating mount shells (suffix **F**) are available. Contacts are rated 5 amps (1.5 amps, MIL). Cadmium-plated steel shell has yellow chromate coating. Pins and sockets are #20 AWG; coaxial contacts and high-voltage contacts available.

Cinch No. by Shell Size	Dimension Key, Inches										
	A	B‡	C†	D‡	E	G	H	J	K	L	M
DE*-9P	1.213	.697	.984	.360	.494	.759	.422	.030	.236	.045	.422
DE*-9S	1.213	.640	.984	.308	.494	.759	.422	.030	.243	.045	.429
DA*-15P	1.541	1.025	1.312	.360	.494	1.083	.422	.030	.236	.045	.422
DA*-15S	1.541	.968	1.312	.308	.494	1.083	.422	.030	.243	.045	.429
DB*-25P	2.088	1.583	1.852	.378	.494	1.625	.422	.039	.231	.060	.426
DB*-25S	2.088	1.508	1.852	.308	.494	1.625	.422	.030	.243	.045	.429
DC*-37P	2.729	2.231	2.500	.378	.494	2.272	.422	.039	.231	.060	.426
DC*-37S	2.729	2.156	2.500	.308	.494	2.272	.422	.030	.243	.045	.429
DD*-50P	2.635	2.127	2.406	.484	.605	2.178	.534	.039	.231	.060	.426
DD*-50S	2.635	2.062	2.406	.420	.605	2.178	.534	.030	.243	.045	.429

*Refer to ordering code for insulator type designation. †.120" dia. holes, standard units; .086" dia., float mount units. ‡Measured as outside dimensions at bottom of the draw.

Type	X Max., Inches
Basic D	.312
Series 1	.390
Series 3	.375
Econo D	.375

SERIES 3 CONNECTOR

Snap-in, removable crimp contacts with rear release assembly. Contacts not interchangeable but units will mate and are interchangeable with all other D Series. Insulator diallyl phthalate, glass fiber filled, per MIL-M-14. Type GD1-30F, royal purple color, monobloc construction. **Contacts:** Pin, leaded copper, gold plate over nickel plate; socket, copper alloy, gold plate over nickel plate with stainless steel sleeves.

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
DEMA-9P	$10.99	$10.01	$8.52	$6.86	$6.30
DEMAF-9P	11.50	10.47	8.91	7.18	6.62
DEMA-9S	11.24	10.24	8.72	7.03	6.44
DEMAF-9S	11.70	10.66	9.07	7.31	6.75
DAMA-15P	15.39	14.02	11.95	9.64	8.86
DAMAF-15P	15.90	14.50	12.34	9.95	9.18
DAMA-15S	15.63	14.24	12.13	9.79	9.02
DAMAF-15S	16.12	14.69	12.52	10.11	9.34
DBMA-25P	23.09	21.05	17.93	14.46	13.32
DBMAF-25P	23.59	21.50	18.32	14.78	13.63
DBMA-25S	23.34	21.28	18.14	14.66	13.51
DBMAF-25S	23.86	21.76	18.54	14.97	13.83
DCMA-37P	32.08	29.24	24.93	20.13	18.53
DCMAF-37P	32.59	29.72	25.33	20.44	18.85
DCMA-37S	32.40	29.55	25.20	20.37	18.78
DCMAF-37S	32.90	30.00	25.59	20.69	19.09
DDMA-50P	41.26	37.63	32.08	25.92	23.87
DDMAF-50P	41.78	38.10	32.48	26.23	24.19
DDMA-50S	41.63	37.97	32.40	26.20	24.16
DDMAF-50S	42.12	38.43	32.79	26.52	24.47

SERIES 3 MIL-C-24308 VERSIONS

Cinch Number	Description	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
M24308/2-1	DEMA-9S	$13.05	$11.92	$10.20	$8.29	$7.66
M24308/2-2	DAMA-15S	18.42	16.85	14.44	11.76	10.88
M24308/2-3	DBMA-25S	28.02	25.64	22.00	17.95	16.61
M24308/2-4	DCMA-37S	39.35	36.01	30.92	25.26	23.39
M24308/2-5	DDMA-50S	51.19	46.87	40.26	32.92	30.50
M24308/4-1	DEMA-9P	12.73	11.62	9.91	8.01	7.38
M24308/4-2	DAMA-15P	17.97	16.41	14.02	11.38	10.50
M24308/4-3	DBMA-25P	27.39	25.01	21.40	17.38	16.04
M24308/4-4	DCMA-37P	38.46	35.15	30.08	24.46	22.59
M24308/4-5	DDMA-50P	50.05	45.74	39.16	31.86	29.44

BASIC "D" CONNECTORS

Two-piece construction utilizes two-piece Nylon insulator material. **Temp. Range:** −65° F to +250° F. **Contacts:** Pin, gold plate over nickel-plated brass; socket, gold plate over nickel-plated phosphor bronze.

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
DE-9P	$2.07	$1.88	$1.61	$1.30	$1.23
DE-9S	3.00	2.71	2.29	1.88	1.75
DEF-9P	3.18	2.91	2.43	2.00	1.81
DEF-9S	4.11	3.70	3.14	2.58	2.37
DA-15P	2.95	2.68	2.28	1.86	1.74
DA-15S	4.38	3.99	3.39	2.80	2.59
DAF-15P	4.08	3.69	3.12	2.52	2.35
DAF-15S	5.45	4.97	4.26	3.50	3.24
DB-25P	4.30	4.03	3.38	2.74	2.54
DB-25S	6.77	6.15	5.22	4.33	4.04
DBF-25P	5.54	5.00	4.27	3.50	3.24
DBF-25S	7.98	7.27	6.16	5.11	4.70
DC-37P	5.87	5.35	4.54	3.78	3.50
DC-37S	9.60	8.74	7.44	6.15	5.73
DCF-37P	7.12	6.47	5.51	4.50	4.20
DCF-37S	10.82	9.86	8.37	6.90	6.43
DD-50P	7.68	6.99	5.95	4.94	4.60
DD-50S	12.69	11.55	9.85	8.10	7.55
DDF-50P	8.90	8.08	6.90	5.70	5.27
DDF-50S	13.91	12.67	10.78	8.88	8.25

BASIC "D" CONNECTORS .025" × .025" WIRE WRAP TAILS, ⅜" LONG

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
DE-9P-F179	$3.27	$2.67	$2.35	$2.09	$2.01
DE-9S-F179	5.79	4.66	3.91	3.16	2.93
DA-15P-F179	4.30	3.47	3.09	2.78	2.65
DA-15S-F179	7.93	6.36	5.33	4.31	3.99
DB-25P-F179	6.75	5.46	4.80	4.08	3.90
DB-25S-F179	9.48	7.75	6.84	6.47	5.82
DC-37P-F179	9.24	7.45	6.69	5.86	5.58
DC-37S-F179	12.57	10.23	9.78	9.31	8.85
DD-50P-F179	11.06	9.00	8.03	7.32	6.98
DD-50S-F179	16.59	13.43	12.81	12.13	11.39

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D-SUBMINIATURE CONNECTORS (CONT'D)

SERIES 3 CONTACTS (D-MA)

Crimp contacts, commercial and military types.

Cinch Number				Net Each, Lots	
Commercial	Military	Type	Std. Pkg.	100-4999	5000-24,999
330-5291-000	....	Pin	100	$0.257	$0.227
031-1007-000	....	Socket	100	.367	.317
....	M-24308/11-1	Pin	100	.295	.26
....	M24308/10-1	Socket	100	.425	.371

SERIES 1 CONNECTORS

Monobloc insulator design of glass-filled diallyl phthalate per MIL-M-14F, Type SGD. **Temperature Range:** −65° F to +300° F. **Contacts:** Pin contacts, gold plate over nickel-plated brass; female contacts, gold plate over nickel-plated brass.

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
DEM-9P	$4.00	$3.61	$3.05	$2.47	$2.27
DEM-9S	5.59	5.08	4.30	3.54	3.27
DEMF-9P	5.12	4.64	3.85	3.16	2.90
DEMF-9S	6.70	6.09	5.14	4.20	3.89
DAM-15P	5.78	5.26	4.41	3.61	3.33
DAM-15S	8.35	7.57	6.41	5.23	4.88
DAMF-15P	6.89	6.25	5.28	4.27	3.97
DAMF-15S	9.47	8.57	7.25	5.91	5.47
DBM-25P	8.57	7.76	6.59	5.35	5.00
DBM-25S	12.90	11.70	9.95	8.14	7.56
DBMF-25P	9.77	8.86	7.49	6.10	5.64
DBMF-25S	14.14	12.83	10.85	8.88	8.24
DCM-37P	11.77	10.26	8.72	7.51	6.95
DCM-37S	18.46	16.75	14.20	11.65	10.83
DCMF-37P	13.23	11.99	10.13	8.29	7.63
DCMF-37S	19.66	17.83	15.11	12.39	11.53
DDM-50P	15.55	14.14	11.95	9.81	9.07
DDM-50S	24.20	21.96	18.70	15.37	14.25
DDMF-50P	16.81	15.27	12.89	10.52	9.77
DDMF-50S	25.46	23.10	19.62	16.08	14.91

ECONO "D" CONNECTORS

"D" connectors for commercial applications where economy is an important factor. Rear release, crimp, snap-in contacts that are readily inserted and removed with a simple plastic tool. Two-piece, glass-filled nylon insulator. Copper alloy contacts with 20 microinches of gold over nickel. Uses same shell as other series.

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
WITH CONTACTS					
DEC-9P	$2.16	$1.95	$1.61	$1.33	$1.29
DEC-9S	2.89	2.64	2.14	1.81	1.71
DAC-15P	2.97	2.70	2.24	1.88	1.80
DAC-15S	4.14	3.77	3.09	2.57	2.50
DBC-25P	4.28	3.89	3.26	2.73	2.64
DBC-25S	6.11	5.55	4.63	3.90	3.70
DCC-37P	5.95	5.44	4.59	3.89	3.73
DCC-37S	8.77	7.99	6.73	5.63	5.34
DDC-50P	7.56	6.93	5.86	4.96	4.77
DDC-50S	11.24	10.25	8.67	7.28	6.82
WITHOUT CONTACTS					
DEC-9P-FO	$1.05	$0.94	$0.77	$0.63	$0.57
DEC-9S-FO	1.05	.94	.77	.63	.57
DAC-15P-FO	1.15	1.03	.83	.67	.61
DAC-15S-FO	1.15	1.03	.83	.67	.61
DBC-25P-FO	1.28	1.10	.97	.74	.67
DBC-25S-FO	1.19	1.04	.88	.69	.65
DCC-37P-FO	1.53	1.33	1.10	.89	.84
DCC-37S-FO	1.46	1.29	1.09	.86	.78
DDC-50P-FO	1.63	1.46	1.16	.94	.89
DDC-50S-FO	1.50	1.32	1.14	.88	.80

BASIC D CONNECTORS WITH .040" DIAMETER PRINTED CIRCUIT TERMINALS

Cinch Number	Net Each, Lots of				
	1-24	25-49	50-99	100-249	250 Up
DE-9PV	$3.06	$2.63	$2.32	$2.06	$1.98
DE-9SV	4.29	3.68	3.29	2.84	2.73
DA-15PV	4.29	3.89	3.53	3.14	2.97
DA-15SV	6.17	5.60	4.99	4.41	4.24
DB-25PV	9.40	8.52	7.19	5.85	5.39
DB-25SV	13.48	12.19	10.30	8.36	7.71
DC-37PV	9.79	8.41	7.64	6.84	6.57
DC-37SV	14.84	12.71	11.44	10.13	9.68
DD-50PV	12.96	11.12	10.10	9.06	8.69
DD-50SV	19.73	16.92	15.18	13.47	12.94

SERIES 1 WITH COAXIAL AND HIGH VOLTAGE CAVITIES

Includes solder type #20 AWG contacts assembled, but no coaxial or high-voltage contacts (ordered separately, see below)

Cinch Number	Number of		Net Each, Lots of				
	Cavities	Contacts	1-24	25-49	50-99	100-249	250 Up
DEM-5W1P	1	4	$3.36	$3.01	$2.56	$2.05	$1.92
DEM-5W1S	1	4	3.91	3.54	2.98	2.42	2.22
DAM-3W3P	3	None	2.52	2.27	1.91	1.53	1.40
DAM-3W3S	3	None	2.52	2.27	1.91	1.53	1.40
DAMF-3W3S	3	None	3.64	3.29	2.77	2.20	2.02
DAM-11W1P	1	10	4.93	4.47	3.74	3.07	2.82
DAM-11W1S	1	10	6.29	5.71	4.87	3.94	3.68
DAMF-11W1P	1	10	6.04	5.45	4.62	3.72	3.44
DAMF-11W1S	1	10	7.43	6.71	5.66	4.64	4.29
DAM-7W2P	2	5	3.68	3.36	2.83	2.28	2.10
DAM-7W2S	2	5	4.39	4.01	3.37	3.72	2.51
DAMF-7W2S	2	5	5.50	4.98	4.17	3.41	3.12
DBM-13W3P	3	10	5.21	4.72	3.99	3.21	3.00
DBM-13W3S	3	10	6.58	5.97	5.03	4.15	3.83
DBM-9W4P	4	5	4.00	3.59	3.02	2.46	2.27
DBM-9W4S	4	5	4.69	4.24	3.59	2.91	2.68
DBMF-9W4P	4	5	5.22	4.69	3.98	3.19	2.96
DBMF-9W4S	4	5	5.92	5.36	4.49	3.65	3.37
DBM-17W2P	2	15	6.42	5.82	4.88	3.98	3.71
DBM-17W2S	2	15	8.47	7.70	6.53	5.36	4.98
DBMF-17W2P	2	15	7.64	6.94	5.84	4.78	4.38
DBMF-17W2S	2	15	9.73	8.83	7.42	6.10	5.63
DBM-21W1P	1	20	7.64	6.90	5.86	4.74	4.39
DBM-21W1S	1	20	10.39	9.45	8.03	6.58	6.09
DCM-13W6P	6	7	4.84	4.38	3.67	2.97	2.75
DCM-13W6S	6	7	5.80	5.26	4.42	3.60	3.33

COAXIAL AND HIGH VOLTAGE CONTACTS

Use with the above coaxial and high-voltage shell assemblies. **Prefix: 53740**—Coaxial straight solder male; **53741**—Coaxial right angle solder male; **53742**—Coaxial straight solder receptacle; **53743**—Coaxial right angle solder receptacle; **53744**—High-voltage male; **53745**—High-voltage receptacle.

Cinch Number	For Cable RG-	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
DM-53740-5000†	196/U	$3.63	$3.38	$3.07	$2.72	$2.42
DM-53740-5001	187, 188/U	3.64	3.41	3.08	2.74	2.43
DM-53740-5002	195/U	3.78	3.53	3.21	2.88	2.53
DM-53740-5008	196/U	3.62	3.39	3.06	2.72	2.41
DM-53741-5000	196/U	4.07	3.81	3.44	3.07	2.71
DM-53741-5001	187, 188/U	4.52	4.21	3.82	3.41	3.01
DM-53742-5000	196/U	4.04	3.78	3.41	3.04	2.68
DM-53742-5001	187, 188/U	3.93	3.67	3.32	2.96	2.61
DM-53742-5002	195/U	4.61	4.28	3.89	3.49	3.07
DM-53742-5004	58/U	4.90	4.56	4.11	3.69	3.36
DM-53743-5000	196/U	5.02	4.67	4.21	3.77	3.31
DM-53743-5001	187, 188/U	4.94	4.61	4.16	3.71	3.27
DM-53744-0000‡	#20 wire	3.56	2.29	2.06	1.82	1.59
DM-53744-5000*	#20 wire	3.47	3.23	2.90	2.56	2.25
DM-53745-0000‡	#20 wire	2.49	2.30	2.07	1.83	1.61
DM-53745-5000*	#20 wire	3.68	3.42	3.07	2.73	2.39

*Right-angle. †Short type plug. ‡Straight.

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D-SUBMINIATURE CONNECTORS (CONT'D)

"DATAPHONE" CONNECTORS AND HOODS

Insulators are diallyl phthalate per MIL-M-14. Type GDI-30. Hoods black phenolic, fit plug or socket connector.

Cinch Number	Description	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
DA-19603-404	15-cont. sckt.	$9.98	$9.20	$8.49	$7.65	$6.88
DB-19604-433	25-cont. sckt.	16.26	14.97	13.71	12.47	11.19
DA-19603-403	15-pin plug	4.69	4.43	4.03	3.65	3.51
DB-19604-432	25-pin plug	6.59	6.20	5.63	5.08	4.87
DA-51225-1	15-size hood	2.19	1.96	1.59	1.45	1.35
DB-51226-1A	25-size hood	2.42	2.04	1.62	1.50	1.38

SUPER D CONNECTOR AND ADAPTER SYSTEMS

For cable-to-cable and cable-to-panel applications in computers, peripheral equipment, medical equipment, instrumentation, cable assemblies, etc. Fast solderless IDC termination; no wire preparation or stripping. Glass-filled polyester hoods cover 9, 15, 25, or 37 contact Super D connectors that mate with each other and existing D type connectors. Hoods are available with latches to lock connectors together, or, they may be fastened with screws.

CONNECTORS

Cinch Number	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
WITH MOUNTING HOLES					
TE-9P	$1.79	$1.57	$1.35	$1.10	$1.02
TE-9S	1.71	1.50	1.28	1.04	.96
TA-15P	2.48	2.13	1.83	1.50	1.40
TA-15S	2.28	2.00	1.71	1.39	1.28
TB-25P	3.41	3.01	2.60	2.14	1.99
TB-25S	3.20	2.80	2.40	1.96	1.82
TC-37P	4.65	4.11	3.55	2.93	2.73
TC-37S	4.36	3.83	3.29	2.69	2.49
WITH MOUNTING HOLES AND LATCHING BLOCKS					
TE-9P-LB	$1.81	$1.59	$1.36	$1.13	$1.03
TE-9S-LB	1.73	1.53	1.30	1.05	.97
TA-15P-LB	2.49	2.14	1.85	1.52	1.41
TA-15S-LB	2.30	2.01	1.72	1.40	1.29
TB-25P-LB	3.43	3.02	2.61	2.15	2.00
TB-25S-LB	3.23	2.83	2.43	1.98	1.84
TC-37P-LB	4.69	4.14	3.58	2.95	2.75
TC-37S-LB	4.37	3.84	3.30	2.70	2.50
WITH 4-40 THREADED BUSHINGS					
TE-9P-TB	$2.52	$2.21	$1.89	$1.53	$1.41
TE-9S-TB	2.43	2.12	1.81	1.46	1.34
TA-15P-TB	3.13	2.75	2.36	1.92	1.78
TA-15S-TB	2.99	2.62	2.23	1.81	1.67
TB-25P-TB	4.13	3.64	3.12	2.56	2.38
TB-25S-TB	3.94	3.45	2.95	2.40	2.22
TC-37P-TB	5.36	4.72	4.07	3.35	3.11
TC-37S-TB	5.06	4.44	3.81	3.10	2.87
WITH 4-40 THREADED BUSHINGS AND LATCHING BLOCKS					
TE-9P-LB-1	$3.01	$2.63	$2.24	$1.82	$1.68
TE-9S-LB-1	2.93	2.55	2.17	1.75	1.61
TA-15P-LB-1	3.64	3.19	2.73	2.22	2.06
TA-15S-LB-1	3.52	3.08	2.63	2.12	1.96
TB-25P-LB-1	4.65	4.08	3.51	2.87	2.64
TB-25S-LB-1	4.42	3.87	3.31	2.68	2.27
TC-37P-LB-1	5.91	5.20	4.48	3.67	3.41
TC-37S-LB-1	5.55	4.86	4.16	3.39	3.13

ACCESSORIES

Cinch Number	Description	Net Each, Lots of 1-24	25-49	50-99
SD-LB	Latch block	$0.357	$0.311	$0.263
SD-WC9	Wire cover	.28	.244	.207
SD-WC15*	Wire cover	.284	.247	.21
SD-WC25*	Wire cover	.29	.252	.213
SD-WC37*	Wire cover	.295	.257	.218
SD-4-40(3/4)*	4-40 screws	.038	.033	.028
SD-LB-060	Latch block #	1.53	1.30	1.10
SD-LB-080	Latch block	1.53	1.30	1.10

*Two required per connector. #Includes 2 blocks, 2 screws with lockwashers; number suffix indicates panel thickness.

D-SUBMINIATURE CONNECTOR ACCESSORIES
JUNCTION SHELLS

Cinch Number	Type & Size	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
DA-19678-1	Straight, A	$1.67	$1.53	$1.29	$1.04	$0.94
DB-19678-2	Straight, B	1.99	1.80	1.52	1.20	1.11
DC-19678-3	Straight, C	2.38	2.15	1.80	1.44	1.33
DD-19678-4	Straight, D	2.60	2.40	1.94	1.58	1.44
DA-19977-1	Rt.-angle, A	2.19	1.96	1.63	1.33	1.20
DB-19977-2	Rt.-angle, B	2.41	2.17	1.83	1.45	1.35
DC-19977-3	Rt.-angle, C	2.54	2.28	1.92	1.53	1.40
DD-19977-4	Rt.-angle, D	2.77	2.48	2.06	1.65	1.52
DE-19977-5	Rt.-angle, E	2.79	2.51	2.12	1.66	1.53
DE-24657	Straight, E*	3.12	2.87	2.41	1.93	1.75
DA-24658	Straight, A*	3.07	2.85	2.36	1.89	1.79
DB-24659	Straight, B*	2.48	2.26	1.89	1.53	1.44
DC-24660	Straight, C*	2.58	2.36	1.95	1.59	1.47
DD-24661	Straight, D*	2.90	2.73	2.28	1.85	1.66

*Deep, straight, clamp junction shell.

SCREW LOCK ASSEMBLIES

Cinch Number	Type & Size	1-24	25-49	50-99	100-249	250 Up
D-20418-2	Female, A-E	$0.66	$0.61	$0.56	$0.42	$0.40
D-20419-0	Male, A-C, E	.42	.39	.35	.31	.29
D-20420-0	Male, D	.62	.59	.48	.40	.38

CLEAR POLYPROPYLENE DUST COVERS

Cinch Number	Type & Size	1-24	25-49	50-99	100-249	250 Up
DA-, DB-, DC-, DD-, or DE-59-20-SKT	For sockets	$0.936	$0.822	$0.696	$0.557	$0.511
DA-, DB-, DC-, DD-, or DE-60-20-PLG	For plugs	.936	.822	.696	.557	.511

SLIDING LOCK ASSEMBLIES

Cinch Number	Type & Size	1-24	25-49	50-99	100-249	250 Up
DE-51224-1	1.392" long	$1.36	$1.21	$1.04	$0.84	$0.74
DA-51220-1	1.720" long	.71	.66	.59	.48	.45
DB-51221-1	2.260" long	.71	.65	.58	.47	.42
DC-51222-1	2.908" long	.93	.88	.71	.60	.57
DD-51223-1	2.814" long	1.15	1.07	.89	.67	.65

GRAY PLASTIC HOODS FOR SUPER D CONNECTOR SYSTEM

Cinch Number	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
WITH LATCHES					
SDH-9GL	$1.35	$1.17	$0.99	$0.79	$0.73
SDH-15GL	1.40	1.22	1.03	.83	.76
SDH-25GL	1.51	1.31	1.11	.89	.82
SDH-37GL	1.62	1.41	1.20	.96	.88
WITH FILLER ENDS					
SDH-9GF	$1.24	$1.08	$0.91	$0.73	$0.67
SDH-15GF	1.26	1.10	.93	.75	.68
SDH-25GF	1.37	1.20	1.01	.81	.74
SDH-37GF	1.48	1.29	1.09	.88	.80

BLACK PLASTIC HOODS FOR SUPER D ADAPTER SYSTEM

Cinch Number	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
WITH LATCHES					
SDH-9BL	$1.35	$1.17	$0.99	$0.79	$0.73
SDH-15BL	1.40	1.22	1.03	.83	.76
SDH-25BL	1.51	1.31	1.11	.89	.82
SDH-37BL	1.62	1.41	1.20	.96	.88
WITH FILLER ENDS					
SDH-9BF	$1.24	$1.08	$0.91	$0.73	$0.67
SDH-15BF	1.26	1.10	.93	.75	.68
SDH-25BF	1.37	1.20	1.01	.81	.74
SDH-37BF	1.48	1.39	1.09	.88	.80

ORDERING INFORMATION

Part Number Series	Required Components	Connector System				Adapter System		
		Cable-to-Cable		Cable-to-Panel		Cable-to-Cable	Cable-to-Panel	
		Latch-N-Lock	Screw Lock	Latch-N-Lock	Screw Mount	Latch-N-Lock	Latch-N-Lock	Screw Mount
TX-XXX	Connector with mtg. holes	1	1	1	1			
TX-XXX-TB	Connector with 4-40 bushings*							
TX-XXX-LB	Connector with latching blocks	1						
TX-XXX-LB-1	Connector with 4-40 bushings and latching blocks		1	1	1			
SDH-XXX-GL	Gray hood with latches†	1		1				
SDH-XXX-GF	Gray hood with filler ends†	1	2		1			
SDH-XXX-BL	Black hood with latches†					1	1	
SDH-XXX-BF	Black hood with filler ends†					1		1
SD-WCXX	Strain relief/wire covers#			2#	2#			
SD-4-40(3/4)	4-40 Screws for filler end hoods		2		2	2		2
SD-LB	Metal latching blocks‡					2	2	
SD-LB-XXXX	Panel mounting Sems screws‡			2	2		2	

*Connector with 4-40 bushings may be used to mount to panel and to mate to a connector without hoods. †One stay band/cable clamp supplied with each hood; additional stay bands available. #The 9-position connector strain relief is one piece, so only on required. ‡Latching blocks are available with and without mounting screws; mounting screws are available for either .060"/.080" or .125" panel thickness along with latch blocks.

Cinch "Jones" Plugs And Sockets

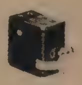
Connector Division
TRW Electronic Components Group

300 SERIES PLUG AND SOCKETS from famous "Jones" line, the standard for the electrical and electronic industry for many years. Small size, with good separation between contacts, for medium-duty applications. Molded phenolic insulator; 2 to 33 cadmium-plated phosphor bronze contacts; for cap or panel mounting. Polarized so only common sizes will mate. "Knife-switch" type socket contacts engage both sides of flat plug contacts. Rated 730 V rms, 10 A max. Contact resistance, .016 ohms max. UL Standard #498 rated (all contacts simultaneously) 7.5 amps, 1875 watts for 2-12 contacts; 4.5 amps, 1125 watts, 15-33 contacts.

AB

CCT

CCT-L


CCE

DB

SB

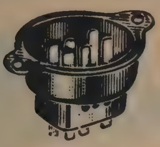
Cinch Number	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
PLUGS WITH ANGLE BRACKETS						
P-302-AB	2	$0.84	$0.63	$0.59	$0.52	$0.50
P-303-AB	3	.92	.70	.62	.54	.53
P-304-AB	4	.99	.84	.68	.59	.53
P-306-AB	6	1.20	.99	.88	.66	.63
P-308-AB	8	1.41	1.12	.96	.82	.76
P-310-AB	10	1.56	1.22	1.07	.89	.87
P-312-AB	12	1.76	1.42	1.16	.96	.92
P-315-AB	15	2.32	1.83	1.56	1.22	1.17
P-318-AB	18	2.74	2.24	1.83	1.52	1.43
P-321-AB	21	3.41	2.74	2.32	1.83	1.78
P-324-AB	24	4.10	3.28	2.75	2.25	2.12
P-327-AB	27	4.79	3.88	3.23	2.57	2.44
P-330-AB	30	5.50	4.38	3.65	2.96	2.80
P-333-AB	33	6.15	4.91	4.11	3.28	3.17
PLUGS WITH CABLE CLAMPS/TOP						
P-302-CCT	2	$1.58	$1.26	$1.07	$0.89	$0.87
P-303-CCT	3	1.76	1.42	1.16	.96	.92
P-304-CCT	4	1.82	1.49	1.22	.99	.96
P-306-CCT	6	2.01	1.67	1.42	1.12	1.07
P-308-CCT	8	2.25	1.79	1.53	1.20	1.16
P-310-CCT	10	2.43	1.95	1.67	1.38	1.26
P-312-CCT	12	2.62	1.12	1.79	1.44	1.38
P-315-CCT	15	3.46	2.80	2.37	1.89	1.82
P-318-CCT	18	4.04	3.24	2.74	2.24	2.04
P-321-CCT	21	4.80	3.89	3.24	2.61	2.48
P-324-CCT	24	5.63	4.52	3.82	3.09	2.87
P-327-CCT	27	6.47	5.13	4.31	3.46	3.28
P-330-CCT	30	7.23	5.81	4.84	3.90	3.70
P-333-CCT	33	8.01	6.45	5.36	4.31	4.10
PLUGS WITH CABLE CLAMPS/TOP & LOCKS						
P-302-CCT-L	2	$1.94	$1.58	$1.35	$1.07	$1.01
P-303-CCT-L	3	2.04	1.70	1.43	1.14	1.08
P-304-CCT-L	4	2.24	1.78	1.52	1.17	1.14
P-306-CCT-L	6	2.43	1.95	1.65	1.35	1.26
P-308-CCT-L	8	2.57	2.04	1.78	1.43	1.38
P-310-CCT-L	10	2.80	2.31	1.90	1.56	1.49
P-312-CCT-L*	12	2.98	2.42	2.00	1.65	1.58
P-315-CCT-L*	15	3.88	3.15	2.61	2.04	1.98
P-318-CCT-L*	18	4.42	3.51	3.03	2.40	2.32
P-321-CCT-L*	21	5.16	4.16	3.47	2.80	2.68
P-324-CCT-L*	24	5.98	4.80	4.04	3.24	3.10
P-327-CCT-L*	27	6.81	5.48	4.54	3.65	3.47
P-330-CCT-L	30	7.59	6.12	5.09	4.10	3.90
P-333-CCT-L	33	8.36	6.69	5.63	4.52	4.25
PLUGS WITH CABLE CLAMPS/END						
P-306-CCE	6	$2.14	$1.77	$1.49	$1.16	$1.12
P-308-CCE	8	2.33	1.86	1.58	1.26	1.20
P-310-CCE	10	2.54	2.00	1.76	1.42	1.35
P-312-CCE	12	2.74	2.24	1.83	1.52	1.43
P-315-CCE	15	3.54	2.84	2.42	1.94	1.83
P-318-CCE	18	4.13	3.29	2.79	2.26	2.14
P-321-CCE	21	5.50	4.42	3.70	2.93	2.81
P-324-CCE	24	5.74	4.62	3.88	3.15	3.04
P-327-CCE	27	6.53	5.22	4.38	3.48	3.34
P-330-CCE	30	7.32	5.86	4.90	3.95	3.75
P-333-CCE	33	8.09	6.51	5.46	4.37	4.13
PLUGS WITH DEEP BRACKETS						
P-302-DB	2	$1.86	$1.53	$1.26	$1.01	$0.99
P-303-DB	3	1.89	1.53	1.34	1.02	.98
P-304-DB	4	1.98	1.60	1.38	1.08	1.02
P-306-DB	6	2.25	1.78	1.52	1.20	1.14
P-308-DB	8	2.37	1.94	1.60	1.34	1.22
P-312-DB	12	2.70	2.24	1.83	1.49	1.43
P-315-DB	15	3.28	2.66	2.26	1.79	1.76
P-318-DB	18	3.93	3.17	2.61	2.19	2.00
P-321-DB	21	4.70	3.81	3.17	2.54	2.42
P-324-DB	24	5.50	4.42	3.70	2.98	2.81
P-327-DB	27	6.28	5.04	4.20	3.35	3.23
P-330-DB	30	6.99	5.64	4.74	3.82	3.62
P-333-DB	33	7.76	6.28	5.25	4.17	4.04
PLUGS WITH SHALLOW BRACKETS						
P-315-SB	15	$3.28	$2.66	$2.26	$1.79	$1.76
P-318-SB	18	3.93	3.17	2.66	2.19	2.00
P-321-SB	21	4.70	3.81	3.17	2.54	2.42
P-324-SB	24	5.50	4.42	3.70	2.98	2.81
P-327-SB	27	6.28	5.04	4.20	3.35	3.23
P-330-SB	30	6.99	5.64	4.74	3.82	3.62
P-333-SB	33	7.76	6.28	5.25	4.17	4.04
PLUGS WITH FLUSH PLATE						
P-302-FP	2	$1.34	$1.02	$0.92	$0.70	$0.68
P-303-FP	3	1.41	1.12	.96	.82	.70
P-304-FP	4	1.49	1.16	.99	.87	.82
P-306-FP	6	1.70	1.41	1.16	.94	.92
P-308-FP	8	1.83	1.52	1.26	1.01	.98
P-310-FP	10	1.98	1.60	1.41	1.12	1.07
P-312-FP	12	2.24	1.78	1.52	1.17	1.14

*Available on special order.

Cinch Number	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
SOCKETS WITH ANGLE BRACKETS						
S-302-AB	2	$0.88	$0.68	$0.60	$0.53	$0.52
S-303-AB	3	.96	.82	.63	.58	.54
S-304-AB	4	1.02	.88	.70	.60	.59
S-306-AB	6	1.34	1.02	.92	.70	.68
S-308-AB	8	1.56	1.23	1.07	.89	.87
S-310-AB	10	1.79	1.44	1.22	.99	.94
S-312-AB	12	2.12	1.70	1.44	1.16	1.08
S-315-AB	15	2.66	2.14	1.79	1.44	1.41
S-318-AB	18	3.06	2.43	2.01	1.67	1.58
S-321-AB	21	3.71	3.04	2.49	1.96	1.94
S-324-AB	24	4.42	3.51	3.03	2.37	2.32
S-327-AB	27	5.09	4.10	3.44	2.75	2.62
S-330-AB	30	5.85	4.70	3.93	3.17	3.04
S-333-AB	33	6.53	5.22	4.37	3.47	3.34
SOCKETS WITH CABLE CLAMPS/TOP						
S-302-CCT	2	$1.60	$1.35	$1.12	$0.92	$0.89
S-303-CCT	3	1.78	1.43	1.17	.96	.94
S-304-CCT	4	1.86	1.53	1.26	1.01	.99
S-306-CCT	6	2.14	1.76	1.44	1.16	1.12
S-308-CCT	8	2.40	1.90	1.60	1.35	1.22
S-310-CCT	10	2.68	2.20	1.82	1.49	1.22
S-312-CCT	12	3.08	2.43	2.00	1.65	1.58
S-315-CCT	15	3.88	3.15	2.61	2.04	1.98
S-318-CCT	18	4.37	3.47	2.93	2.37	2.26
S-321-CCT	21	5.13	4.13	3.46	2.79	2.66
S-324-CCT	24	5.93	4.79	4.00	3.20	3.09
S-327-CCT	27	6.75	5.40	4.53	3.63	3.45
S-330-CCT	30	7.59	6.12	5.09	4.10	3.90
S-333-CCT	33	8.36	6.39	5.63	4.52	4.25
SOCKETS WITH CABLE CLAMPS/TOP & KEEPERS						
S-302-CCT-K	2	$1.97	$1.60	$1.41	$1.08	$1.02
S-303-CCT-K	3	2.14	1.76	1.44	1.16	1.12
S-304-CCT-K	4	2.26	1.82	1.53	1.20	1.16
S-306-CCT-K	6	2.49	1.98	1.70	1.41	1.34
S-308-CCT-K	8	2.75	2.25	1.86	1.53	1.44
S-310-CCT-K	10	3.09	2.44	2.01	1.67	1.59
S-312-CCT-K	12	3.41	2.74	2.32	1.83	1.78
S-315-CCT-K	15	4.20	3.41	2.82	2.32	2.20
S-318-CCT-K	18	4.74	3.82	3.18	2.56	2.43
S-321-CCT-K	21	5.54	4.43	3.71	3.03	2.81
S-324-CCT-K	24	6.30	5.08	4.22	3.41	3.24
S-327-CCT-K	27	7.13	5.70	4.79	3.88	3.63
S-330-CCT-K	30	7.98	6.45	5.34	4.25	4.10
S-333-CCT-K	33	8.75	6.96	5.86	4.71	4.46
SOCKETS WITH CABLE CLAMPS/END						
S-306-CCE	6	$2.25	$1.79	$1.56	$1.20	$1.16
S-308-CCE	8	2.48	1.97	1.70	1.41	1.34
S-310-CCE	10	2.79	2.26	1.90	1.53	1.44
S-312-CCE	12	3.15	2.49	2.12	1.70	1.60
S-315-CCE	15	3.95	3.18	2.66	2.14	2.00
S-318-CCE	18	4.43	3.54	3.04	2.42	2.32
S-321-CCE	21	5.25	4.20	3.48	2.81	2.70
S-324-CCE	24	6.03	4.84	4.08	3.24	3.15
S-327-CCE	27	6.82	5.50	4.62	3.70	3.47
S-330-CCE	30	7.64	6.15	5.13	4.13	3.93
S-333-CCE	33	8.43	6.78	5.67	4.54	4.35
SOCKETS WITH DEEP BRACKETS						
S-302-DB	2	$1.90	$1.56	$1.35	$1.07	$1.01
S-303-DB	3	1.90	1.56	1.35	1.07	1.01
S-304-DB	4	2.00	1.65	1.42	1.12	1.07
S-306-DB	6	2.32	1.83	1.58	1.22	1.17
S-308-DB	8	2.54	2.00	1.76	1.42	1.34
S-312-DB	12	3.15	2.48	2.12	1.70	1.60
S-315-DB	15	3.65	2.98	2.48	1.97	1.89
S-318-DB	18	4.22	3.41	2.82	2.33	2.24
S-321-DB	21	5.04	4.04	3.35	2.70	2.57
S-324-DB	24	5.82	4.68	3.93	3.17	3.03
S-327-DB	27	6.58	5.26	4.42	3.51	3.35
S-330-DB	30	7.40	5.93	5.00	4.00	3.82
S-333-DB	33	8.15	6.56	5.50	4.38	4.17
SOCKETS WITH SHALLOW BRACKETS						
S-315-SB	15	$3.65	$2.98	$2.48	$1.97	$1.92
S-318-SB	18	4.22	3.41	2.82	2.33	2.24
S-321-SB	21	5.04	4.04	3.34	2.70	2.57
S-324-SB	24	5.82	4.68	3.93	3.17	3.03
S-327-SB	27	6.58	5.26	4.42	3.51	3.35
S-330-SB	30	7.40	5.93	5.00	4.00	3.82
S-333-SB	33	8.15	6.56	5.50	4.38	4.17
SOCKETS WITH FLUSH PLATE						
S-302-FP	2	$1.38	$1.08	$0.94	$0.76	$0.71
S-303-FP	3	1.42	1.14	.98	.82	.76
S-304-FP	4	1.53	1.20	1.02	.88	.84
S-306-FP	6	1.78	1.43	1.17	.98	.94
S-308-FP	8	1.98	1.60	1.41	1.12	1.07
S-310-FP	10	2.31	1.82	1.56	1.22	1.17
S-312-FP	12	2.58	2.01	1.77	1.43	1.38

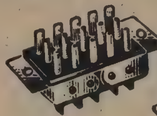
LARGER QUANTITY PRICING AVAILABLE ON REQUEST

300 SERIES "JONES" PLUGS AND SOCKETS (CONTINUED)

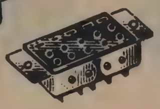


P-306-RP

S-306-RP



P-315-EB



S-315-EB

PLUGS WITH RECESSED PLATES

Cinch Number	Con-tacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
P-302-RP	2	$1.49	$1.17	$1.01	$0.87	$0.84
P-303-RP	3	1.56	1.22	1.07	.89	.87
P-304-RP	4	1.65	1.35	1.12	.94	.89
P-306-RP	6	1.89	1.53	1.20	1.01	.99
P-308-RP	8	2.14	1.76	1.44	1.16	1.12
P-310-RP	10	2.44	1.90	1.60	1.35	1.22
P-312-RP	12	2.66	2.14	1.79	1.44	1.41

PLUGS WITH END BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250 Up
P-315-EB	15	$2.37	$1.89	$1.59	$1.34	$1.20
P-318-EB	18	2.80	2.31	1.89	1.53	1.49
P-321-EB	21	3.46	2.79	2.36	1.89	1.79
P-324-EB	24	4.16	3.34	2.80	2.31	2.20
P-327-EB	27	4.84	3.90	3.27	2.62	2.49
P-330-EB	30	5.55	4.43	3.71	3.04	2.82
P-333-EB	33	6.18	5.00	4.16	3.34	3.18

SOCKETS WITH RECESSED PLATES

Cinch Number	Con-tacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
S-302-RP	2	$1.56	$1.22	$1.02	$0.88	$0.87
S-303-RP	3	1.59	1.34	1.08	.89	.88
S-304-RP	4	1.70	1.41	1.16	.96	.92
S-306-RP	6	1.94	1.58	1.35	1.07	1.01
S-308-RP	8	2.32	1.83	1.58	1.26	1.17
S-310-RP	10	2.66	2.14	1.79	1.44	1.41
S-312-RP	12	3.08	2.43	2.01	1.67	1.58

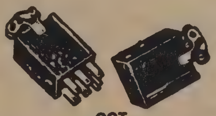
SOCKETS WITH END BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250 Up
S-315-EB	15	$2.70	$2.24	$1.82	$1.49	$1.43
S-318-EB	18	4.31	2.49	2.12	1.70	1.60
S-321-EB	21	3.82	3.09	2.56	2.01	1.95
S-324-EB	24	4.46	3.59	3.08	2.43	2.33
S-327-EB	27	5.16	4.16	3.46	2.80	2.66
S-330-EB	30	5.91	4.74	3.96	3.20	3.08
S-333-EB	33	6.58	5.26	4.42	3.51	3.35

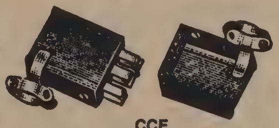
400 SERIES PLUGS AND SOCKETS are rated for duty beyond the range of 300 Series: 1100 V rms at 15 amps. Contact resistance .001 ohm avg. Polarized and suitable for either cap or panel mounting in 2, 4, 6, 8, 10 and 12 contact sizes.

"Knife-switch" type socket contacts of cadmium-plated phosphor bronze engage both sides of flat plug contacts. Plug prongs are cadmium-plated brass ¼" wide, $^1/_{16}$" thick. Caps finished in black wrinkle and fiber lined.

SB



CCT



CCE

DB

PLUGS WITH ANGLE BRACKETS

Cinch Number	Con-tacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
P-402-AB	2	$1.92	$1.55	$1.31	$1.05	$1.01
P-404-AB	4	2.36	1.90	1.60	1.24	1.18
P-406-AB	6	2.73	2.19	1.88	1.52	1.44
P-408-AB	8	3.17	2.51	2.08	1.70	1.62
P-410-AB	10	3.53	2.85	2.43	1.94	1.86
P-412-AB	12	3.96	3.21	2.66	2.13	2.02

PLUGS WITH CABLE CLAMPS/TOP

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
P-402-CCT	2	$3.15	$2.51	$2.08	$1.70	$1.62
P-404-CCT	4	3.54	2.86	2.43	1.94	1.86
P-406-CCT	6	4.08	3.26	2.75	2.25	2.08
P-408-CCT	8	4.50	3.58	3.04	2.46	2.36
P-410-CCT	10	5.19	4.16	3.51	2.81	2.66
P-412-CCT	12	5.63	4.52	3.77	3.08	2.87

PLUGS WITH CABLE CLAMPS/END

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
P-402-CCE	2	$3.23	$2.62	$2.19	$1.79	$1.68
P-404-CCE	4	3.65	2.90	2.48	1.98	1.90
P-406-CCE	6	4.17	3.34	2.81	2.28	2.14
P-408-CCE	8	4.62	3.70	3.14	2.49	2.42
P-410-CCE	10	5.25	4.20	3.54	2.86	2.70
P-412-CCE	12	5.75	4.61	3.88	3.14	2.90

PLUGS WITH DEEP BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
P-402-DB	2	$2.51	$2.02	$1.70	$1.41	$1.31
P-404-DB	4	3.08	2.46	2.04	1.64	1.61
P-406-DB	6	3.54	2.86	2.43	1.94	1.86
P-408-DB	8	4.08	3.26	2.75	2.25	2.08
P-410-DB	10	4.61	3.69	3.14	2.49	2.42
P-412-DB	12	5.14	4.12	3.47	2.75	2.63

PLUGS WITH SHALLOW BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
P-402-SB	2	$2.45	$1.96	$1.64	$1.31	$1.24
P-404-SB	4	2.90	2.42	1.98	1.61	1.54
P-406-SB	6	3.47	2.80	2.38	1.90	1.82
P-408-SB	8	4.00	3.22	2.67	2.14	2.04
P-410-SB	10	4.50	3.58	3.08	2.46	2.36
P-412-SB	12	5.01	4.00	3.36	2.70	2.60

PLUGS LESS ANGLE BRACKETS, DRILLED*

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
P-402-LAB	2	$1.12	$0.94	$0.77	$0.62	$0.59
P-404-LAB	4	1.54	1.18	1.04	.89	.84
P-406-LAB	6	2.01	1.62	1.41	1.12	1.05
P-408-LAB	8	2.45	1.96	1.64	1.31	1.18
P-410-LAB	10	3.08	2.48	2.06	1.68	1.61
P-412-LAB	12	3.53	2.85	2.42	1.92	1.86

*For 6-32 self-tapping screw; except in 2-contact size.

SOCKETS WITH ANGLE BRACKETS

Cinch Number	Con-tacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
S-402-AB	2	$2.25	$1.80	$1.52	$1.18	$1.16
S-404-AB	4	2.85	2.28	1.92	1.55	1.47
S-406-AB	6	3.47	2.80	2.38	1.90	1.82
S-408-AB	8	4.08	3.26	2.73	2.24	2.06
S-410-AB	10	4.66	3.76	3.17	2.51	2.43
S-412-AB	12	5.30	4.24	3.54	2.86	2.73

SOCKETS WITH CABLE CLAMPS/TOP

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
S-402-CCT	2	$3.53	$2.85	$2.42	$1.92	$1.86
S-404-CCT	4	4.18	3.36	2.85	2.28	2.14
S-406-CCT	6	4.88	3.95	3.26	2.63	2.49
S-408-CCT	8	5.50	4.47	3.72	2.99	2.86
S-410-CCT	10	6.23	5.00	4.18	3.41	3.23
S-412-CCT	12	6.93	5.50	4.62	3.72	3.54

SOCKETS WITH CABLE CLAMPS/END

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
S-402-CCE	2	$3.60	$2.88	$2.46	$1.98	$1.90
S-404-CCE	4	4.29	3.47	2.88	2.36	2.25
S-406-CCE	6	5.00	4.00	3.34	2.70	2.60
S-408-CCE	8	5.64	4.52	3.78	3.08	2.88
S-410-CCE	10	6.32	5.08	4.24	3.41	3.24
S-412-CCE	12	7.00	5.61	4.70	3.77	3.57

SOCKETS WITH DEEP BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
S-402-DB	2	$2.85	$2.28	$1.92	$1.55	$1.47
S-404-DB	4	3.54	2.86	2.43	1.94	1.86
S-406-DB	6	4.29	3.47	2.88	2.38	2.25
S-408-DB	8	5.01	4.04	3.36	2.70	2.60
S-410-DB	10	5.76	4.61	3.88	3.15	2.92
S-412-DB	12	6.48	5.20	4.32	3.52	3.33

SOCKETS WITH SHALLOW BRACKETS

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
S-402-SB	2	$2.73	$2.19	$1.88	$1.52	$1.44
S-404-SB	4	3.47	2.80	2.38	1.90	1.82
S-406-SB	6	4.18	3.40	2.85	2.28	2.14
S-408-SB	8	4.91	3.98	3.33	2.66	2.51
S-410-SB	10	4.50	3.78	3.20	3.09	2.88
S-412-SB	12	6.38	5.14	4.29	3.47	3.26

SOCKETS LESS ANGLE BRACKETS, DRILLED*

Cinch Number	Con-tacts	1-24	25-49	50-99	100-249	250-499
S-402-LAB	2	$1.43	$1.13	$0.98	$0.77	$0.71
S-404-LAB	4	2.02	1.62	1.41	1.13	1.10
S-406-LAB	6	2.63	2.08	1.80	1.46	1.41
S-408-LAB	8	3.24	2.62	2.24	1.80	1.68
S-410-LAB	10	3.88	3.15	2.62	2.06	2.01
S-412-LAB	12	4.49	3.58	3.00	2.45	2.34

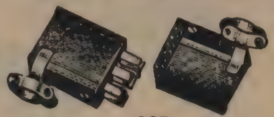
*For 6-32 self-tapping screw; except in 2-contact size.

LARGER QUANTITY PRICING AVAILABLE ON REQUEST

"JONES" PLUGS AND SOCKETS 2400 SERIES

2400 SERIES PLUGS AND SOCKETS are designed for excellent electrical and mechanical performance. Ratings are the same as 400 Series, except for higher (1700 volts) voltage rating. Fully interchangeable with corresponding units of the 400 Series.

CCT


CCE

DB

SB

PLUGS WITH CABLE CLAMPS/TOP

Cinch Number	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
P-2402-CCT	2	$3.29	$2.66	$2.25	$1.80	$1.70
P-2404-CCT	4	3.72	2.99	2.51	2.02	1.94
P-2406-CCT	6	4.17	3.34	2.81	2.28	2.14
P-2408-CCT	8	4.61	3.70	3.15	2.49	2.42
P-2410-CCT	10	5.08	4.08	3.40	2.73	2.62
P-2412-CCT	12	5.30	4.25	3.57	2.86	2.70

PLUGS WITH CABLE CLAMPS/END

P-2402-CCE	2	$3.36	$2.73	$2.30	$1.86	$1.79
P-2404-CCE	4	3.84	3.09	2.60	2.06	1.98
P-2406-CCE	6	4.25	3.41	2.87	2.36	2.25
P-2408-CCE	8	4.70	3.77	3.21	2.52	2.45
P-2410-CCE	10	5.18	4.17	3.51	2.80	2.66
P-2412-CCE	12	5.62	4.50	3.76	3.00	2.87

PLUGS WITH DEEP BRACKETS

P-2402-DB	2	$2.62	$2.06	$1.79	$1.44	$1.37
P-2404-DB	4	3.00	2.36	2.02	1.64	1.60
P-2406-DB	6	3.47	2.75	2.36	1.90	1.80
P-2408-DB	8	3.88	3.15	2.62	2.06	2.01
P-2410-DB	10	4.29	3.47	2.87	2.36	2.25
P-2412-DB	12	4.70	3.77	3.21	2.52	2.45

PLUGS WITH SHALLOW BRACKETS

P-2402-SB	2	$2.43	$1.94	$1.62	$1.31	$1.24
P-2402-SB	4	2.85	2.28	1.92	1.55	1.47
P-2406-SB	6	3.24	2.62	2.19	1.80	1.68
P-2408-SB	8	3.69	2.99	2.48	2.22	2.13
P-2410-SB	10	4.10	3.29	2.75	2.25	2.08
P-2412-SB	12	4.55	3.60	3.08	2.46	2.36

PLUGS LESS ANGLE BRACKETS, DRILLED AND TAPPED*

P-2402-LAB	2	$1.41	$1.12	$0.95	$0.71	$0.69
P-2404-LAB	4	1.80	1.46	1.18	.99	.95
P-2406-LAB	6	2.25	1.80	1.52	1.18	1.16
P-2408-LAB	8	2.63	2.08	1.80	1.46	1.41
P-2410-LAB	10	3.09	2.46	2.04	1.68	1.61
P-2412-LAB	12	3.51	2.81	2.38	1.90	1.82

*Except in 2 contact size.

SOCKETS WITH CABLE CLAMPS/TOP

Cinch Number	Contacts	Net Each, Lots of 1-24	25:49	50-99	100-249	250 Up
S-2402-CCT	2	$3.57	$3.00	$2.45	$1.94	$1.88
S-2404-CCT	4	3.96	3.21	2.66	2.13	2.02
S-2406-CCT	6	4.43	3.53	2.92	2.43	2.28
S-2408-CCT	8	4.88	3.95	3.26	2.63	2.49
S-2410-CCT	10	5.36	4.25	3.57	2.87	2.73
S-2412-CCT	12	5.79	4.64	3.89	3.15	2.99

SOCKETS WITH CABLE CLAMPS/END

S-2402-CCE	2	$3.69	$2.92	$2.48	$1.98	$1.92
S-2404-CCE	3	4.04	3.24	2.73	2.19	2.06
S-2406-CCE	6	4.50	3.58	3.08	2.46	2.36
S-2408-CCE	8	4.97	4.00	3.34	2.67	2.52
S-2410-CCE	10	5.43	4.32	3.65	2.90	2.80
S-2412-CCE	12	5.93	4.74	3.98	3.21	3.00

SOCKETS WITH DEEP BRACKETS

S-2402-DB	2	$2.80	$2.27	$1.90	$1.54	$1.46
S-2404-DB	4	3.23	2.62	2.19	1.79	1.68
S-2406-DB	6	3.69	2.92	2.48	1.98	1.92
S-2408-DB	8	4.12	3.29	2.80	2.27	2.08
S-2410-DB	10	4.54	3.65	3.08	2.48	2.38
S-2412-DB	12	5.00	4.02	3.36	2.70	2.60

SOCKETS WITH SHALLOW BRACKETS

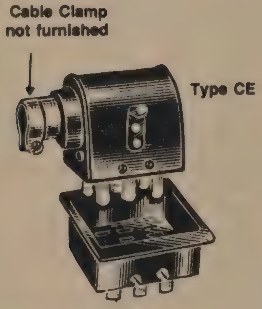
S-2402-SB	2	$2.62	$2.06	$1.79	$1.44	$1.37
S-2404-SB	4	3.04	2.46	2.04	1.64	1.60
S-2406-SB	6	3.51	2.81	2.38	1.90	1.82
S-2408-SB	8	3.95	3.17	2.66	2.13	2.02
S-2410-SB	10	4.40	3.52	2.90	2.42	2.27
S-2412-SB	12	4.88	3.88	3.24	2.62	2.48

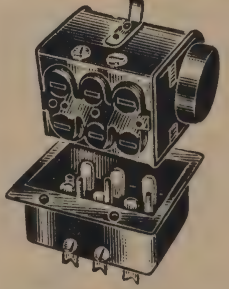
SOCKETS LESS ANGLE BRACKETS, DRILLED AND TAPPED*

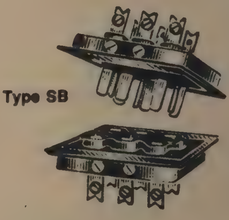
S-2402-LAB	2	$1.55	$1.24	$1.05	$0.89	$0.88
S-2404-LAB	4	1.98	1.61	1.41	1.12	1.05
S-2406-LAB	6	2.46	1.96	1.64	1.37	1.24
S-2408-LAB	8	2.87	2.36	1.96	1.60	1.52
S-2410-LAB	10	3.33	2.67	2.27	1.82	1.72
S-2412-LAB	12	3.76	3.08	2.52	2.02	1.94

*Except in 2 contact size.

"JONES" PLUGS AND SOCKETS 500 SERIES




Type DB


Type SB

500 SERIES PLUGS AND SOCKETS feature three types—**Type DB** with deep bracket for recessed mounting; **Type CE** for cable clamp in end; **Type SB** with shallow bracket for flush mounting. **Rated Voltage:** 3 kV, max. **Rated Current:** 25 amperes per contact. **Power Capacity:** 5 kW, max. **Contacts:** Male, cadmium plated brass; Female, cadmium plated phosphor. **Caps and Brackets:** Parkerized steel.

DEEP BRACKET FOR RECESSED MOUNTING

Cinch Number			Net Each, Lots of			
Plug	Socket	Contacts	1-24	25-49	50-99	100-249
P-502-DB	S-502-DB	2	$19.98	$16.07	$12.59	$10.85
P-504-DB	S-504-DB	4	22.92	18.33	14.87	13.14
P-506-DB	S-506-DB	6	25.64	20.52	17.08	15.33
P-508-DB	S-508-DB	8	27.99	22.42	18.97	17.15
P-510-DB	S-510-DB	10	30.33	24.30	20.86	19.08
P-512-DB	S-512-DB	12	32.03	25.76	22.29	20.52

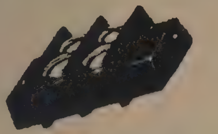
CABLE CLAMP IN END

Cinch Number			Net Each, Lots of			
Plug	Socket	Contacts	1-24	25-49	50-99	100-249
P-502-CE	S-502-CE	2	$23.64	$18.93	$15.45	$13.72
P-504-CE	S-504-CE	4	27.28	21.80	18.33	16.62
P-506-CE	S-506-CE	6	29.81	23.85	20.39	18.64
P-508-CE	S-508-CE	8	31.26	24.97	21.55	19.73
P-510-CE	S-510-CE	10	34.15	27.37	23.85	22.13
P-512-CE	S-512-CE	12	36.33	29.10	25.62	23.85

SHALLOW BRACKET FOR FLUSH MOUNTING

P-502-SB	S-502-SB	2	$19.98	$16.07	$12.59	$10.85
P-504-SB	S-504-SB	4	22.92	18.33	14.87	13.14
P-506-SB	S-506-SB	6	25.64	20.52	17.08	15.33
P-508-SB	S-508-SB	8	27.99	22.42	18.97	17.15
P-510-SB	S-510-SB	10	30.33	24.30	20.86	19.08
P-512-SB	S-512-SB	12	32.03	25.76	22.29	20.52

LARGER QUANTITY PRICING AVAILABLE ON REQUEST



Barrier design for high voltage rating. Molded phenolic base, nickel plated brass eyelets, steel screws with nickel over copper flash, and electro-tinned terminals. Marker strips and fanning strips for terminal blocks are listed on other pages. Terminals available: ¾ W for soldered wires on one side of block; Y for soldered wires underneath block; W for soldered wires on both sides of block (available as standard on 172 series—special order on others); E for Sems screws; no suffix for standard binder-head screws.

	Type 140	Type 141	Type 142	Type 150*	Type 151*	Type 152*
Size, W. × H.	⅞" × 13/32"	1⅛" × ½"	15/16" × ⅝"	113/16" × ¾"	2" × 15/16"	2½" × 1⅛"
Barrier spacing	⅜"	7/16"	9/16"	11/16"	⅞"	1⅛"
Mtg. centers	5/16"	27/64"	½"	⅝"	¾"	⅞"
Mtg. hole dia.	.160"	.175"/.185"	.209"	.160"	.180"	.209"
Screw size	5-40	6-32	8-32	10-32	12-32	¼"-28
Max. wire size	#16	#14	#10	#10	#8	#6
Max. V rms†	1100	1100	1600	1700	1800	2100

*Have .136" hole centered between mounting holes. †Without marker strip.

SERIES 140 (UL RECOGNIZED)

	TYPE 140 Net Each, Lots of				TYPE 140-E Net Each, Lots of				TYPE 140-¾W Net Each, Lots of				TYPE 140-Y Net Each, Lots of			
Con-tacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
1	1-140	$0.48	$0.39	$0.34	1-140-E	....	....	....	1-140-¾ W	$0.53	$0.47	$0.42	1-140-Y	$0.53	$0.47	$0.42
2	2-140	.53	.48	.42	2-140-E	$0.71	$0.56	$0.51	2-140-¾ W	.66	.53	.50	2-140-Y	.66	.53	.50
3	3-140	.59	.52	.47	3-140-E	.90	.74	.59	3-140-¾ W	.82	.66	.55	3-140-Y	.82	.66	.55
4	4-140	.79	.59	.53	4-140-E	1.06	.88	.75	4-140-¾ W	1.13	.90	.79	4-140-Y	1.06	.88	.78
5	5-140	.94	.78	.63	5-140-E	1.35	1.09	.91	5-140-¾ W	1.36	1.09	.94	5-140-Y	1.29	1.03	.90
6	6-140	1.09	.88	.78	6-140-E	1.57	1.26	1.06	6-140-¾ W	1.60	1.28	1.06	6-140-Y	1.60	1.28	1.06
7	7-140	1.26	.99	.87	7-140-E	1.68	1.36	1.15	7-140-¾ W	1.79	1.49	1.26	7-140-Y	1.73	1.41	1.22
8	8-140	1.41	1.15	.97	8-140-E	1.87	1.51	1.27	8-140-¾ W	2.08	1.67	1.41	8-140-Y	2.00	1.60	1.35
9	9-140	1.59	1.27	1.02	9-140-E	2.19	1.76	1.49	9-140-¾ W	2.29	1.81	1.59	9-140-Y	2.19	1.74	1.50
10	10-140	1.70	1.40	1.21	10-140-E	2.39	1.91	1.61	10-140-¾W	2.52	2.06	1.70	10-140-Y	2.41	2.00	1.64
11	11-140	1.81	1.49	1.27	11-140-E	2.54	2.07	1.73	11-140-¾ W	2.79	2.21	1.87	11-140-Y	2.63	2.11	1.76
12	12-140	2.06	1.63	1.36	12-140-E	2.81	2.24	1.88	12-140-¾ W	2.97	2.40	2.06	12-140-Y	2.86	2.29	1.98
13	13-140	2.17	1.73	1.49	13-140-E	3.07	2.44	2.07	13-140-¾ W	3.24	2.58	2.18	13-140-Y	3.09	2.46	2.10
14	14-140	2.33	1.87	1.60	14-140-E	3.27	2.65	2.19	14-140-¾ W	3.48	2.81	2.33	14-140-Y	3.32	2.68	2.24
15	15-140	2.46	2.03	1.67	15-140-E	3.45	2.79	2.33	15-140-¾ W	3.69	2.95	2.46	15-140-Y	3.56	2.85	2.39
16	16-140	2.63	2.11	1.76	16-140-E	3.68	2.95	2.46	16-140-¾ W	3.93	3.12	2.67	16-140-Y	3.73	2.99	2.52
17	17-140	2.80	2.21	1.87	17-140-E	3.89	3.11	2.63	17-140-¾ W	4.18	3.33	2.81	17-140-Y	3.96	3.16	2.70
18	18-140	2.93	2.36	2.01	18-140-E	4.11	3.30	2.80	18-140-¾ W	4.39	3.53	2.94	18-140-Y	4.21	3.40	2.82
19	19-140	3.09	2.44	2.08	19-140-E	4.34	3.48	2.92	19-140-¾ W	4.63	3.71	3.10	19-140-Y	4.39	3.56	2.95
20	20-140	3.23	2.58	2.18	20-140-E	4.56	3.65	3.07	20-140-¾ W	4.86	3.87	3.25	20-140-Y	4.63	3.71	3.10

Series 140 terminal blocks are available with up to 25 positions; price on request.

SERIES 141 (UL RECOGNIZED)

	TYPE 141 Net Each, Lots of				TYPE 141-E Net Each, Lots of				TYPE 141-¾ W Net Each, Lots of				TYPE 141-Y Net Each, Lots of			
Con-tacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
1	1-141	$0.53	$0.47	$0.42	....	....	....	....	1-141-¾ W	$0.63	$0.52	$0.48	1-141-Y	$0.63	$0.52	$0.48
2	2-141	.58	.50	.44	2-141-E	$0.75	$0.59	$0.52	2-141-¾ W	.82	.63	.53	2-141-Y	.82	.63	.53
3	3-141	.79	.59	.53	3-141-E	1.06	.87	.74	3-141-¾ W	1.13	.90	.79	3-141-Y	1.09	.88	.78
4	4-141	.99	.83	.71	4-141-E	1.35	1.09	.91	4-141-¾ W	1.44	1.21	.98	4-141-Y	1.41	1.15	.97
5	5-141	1.26	.97	.90	5-141-E	1.59	1.27	1.06	5-141-¾ W	1.74	1.41	1.22	5-141-Y	1.68	1.36	1.14
6	6-141	1.36	1.09	.94	6-141-E	1.74	1.41	1.21	6-141-¾ W	2.06	1.63	1.36	6-141-Y	1.95	1.59	1.34
7	7-141	1.61	1.28	1.09	7-141-E	2.06	1.64	1.40	7-141-¾ W	2.36	1.86	1.61	7-141-Y	2.28	1.79	1.57
8	8-141	1.76	1.42	1.24	8-141-E	2.33	1.87	1.59	8-141-¾ W	2.68	2.12	1.77	8-141-Y	2.52	2.06	1.70
9	9-141	2.00	1.60	1.35	9-141-E	2.53	2.06	1.73	9-141-¾ W	2.94	2.36	2.01	9-141-Y	2.81	2.24	1.88
10	10-141	2.18	1.74	1.49	10-141-E	2.90	2.33	1.95	10-141-¾ W	3.28	2.63	2.19	10-141-Y	3.10	2.46	2.10
11	11-141	2.36	1.88	1.63	11-141-E	3.11	2.52	2.10	11-141-¾ W	3.56	2.86	2.40	11-141-Y	3.41	2.77	2.29
12	12-141	2.53	2.07	1.70	12-141-E	3.33	2.68	2.24	12-141-¾ W	3.86	3.09	2.58	12-141-Y	3.68	2.94	2.44
13	13-141	2.79	2.19	1.81	13-141-E	3.60	2.90	2.41	13-141-¾ W	4.16	3.32	2.81	13-141-Y	3.96	3.16	2.70
14	14-141	2.94	2.36	2.01	14-141-E	4.00	3.24	2.58	14-141-¾ W	4.48	3.60	2.97	14-141-Y	4.27	3.45	2.90
15	15-141	3.11	2.50	2.11	15-141-E	4.21	3.41	2.80	15-141-¾ W	4.73	3.79	3.16	15-141-Y	4.54	3.65	3.07

Series 141 terminal blocks are available with up to 20 positions; prices on request.

SERIES 142 (UL RECOGNIZED)

	TYPE 142 Net Each, Lots of				TYPE 142-E Net Each, Lots of				TYPE 142-¾ W Net Each, Lots of				TYPE 142-Y Net Each, Lots of			
Con-tacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
1	1-142	$0.58	$0.50	$0.44	....	....	....	....	1-142-¾ W	$0.78	$0.58	$0.52	1-142-Y	$0.74	$0.56	$0.51
2	2-142	.71	.55	.50	2-142-E	$0.91	$0.75	$0.63	2-142-¾ W	.98	.82	.68	2-142-Y	.94	.79	.63
3	3-142	.91	.75	.59	3-142-E	1.20	.97	.82	3-142-¾ W	1.40	1.14	.97	3-142-Y	1.28	1.02	.88
4	4-142	1.22	.97	.83	4-142-E	1.49	1.21	1.01	4-142-¾ W	1.79	1.49	1.26	4-142-Y	1.68	1.36	1.15
5	5-142	1.42	1.15	.97	5-142-E	1.74	1.41	1.21	5-142-¾ W	2.19	1.74	1.50	5-142-Y	2.06	1.63	1.40
6	6-142	1.67	1.35	1.15	6-142-E	2.03	1.63	1.40	6-142-¾ W	2.58	2.10	1.74	6-142-Y	2.41	1.98	1.63
7	7-142	1.95	1.57	1.29	7-142-E	2.41	1.95	1.73	7-142-¾ W	2.97	2.40	2.06	7-142-Y	2.80	2.21	1.87
8	8-142	2.17	1.73	1.48	8-142-E	2.70	2.18	1.88	8-142-¾ W	3.40	2.71	2.28	8-142-Y	3.11	2.50	2.11
9	9-142	2.39	1.95	1.61	9-142-E	2.97	2.40	2.07	9-142-¾ W	3.73	2.99	2.52	9-142-Y	3.48	2.81	2.33
10	10-142	2.67	2.12	1.76	10-142-E	3.32	2.68	2.21	10-142-¾ W	4.19	3.33	2.82	10-142-Y	3.87	3.10	2.58
11	11-142	2.90	2.31	1.98	11-142-E	3.53	2.82	2.41	11-142-¾ W	4.54	3.65	3.07	11-142-Y	4.21	3.41	2.85
12	12-142	3.11	2.50	2.11	12-142-E	3.71	2.97	2.67	12-142-¾ W	4.97	3.96	3.32	12-142-Y	4.56	3.68	3.09
13	13-142	3.40	2.71	2.28	13-142-E	3.92	3.12	2.85	13-142-¾ W	5.32	4.28	3.60	13-142-Y	4.97	3.96	3.32
14	14-142	3.61	2.92	2.42	14-142-E	4.16	3.32	3.07	14-142-¾ W	5.77	3.92	3.86	14-142-Y	5.29	4.26	3.58
15	15-142	3.87	3.10	2.58	15-142-E	4.85	3.89	3.25	15-142-¾ W	6.16	4.95	4.16	15-142-Y	5.69	4.54	3.79
16	16-142	4.12	3.30	2.80	16-142-E	5.22	4.16	3.48	16-142-¾ W	6.53	5.26	4.36	16-142-Y	6.06	4.87	4.07
17	17-142	4.34	3.49	2.93	17-142-E	5.49	4.39	3.68	17-142-¾ W	6.92	5.57	4.66	17-142-Y	6.42	5.12	4.28

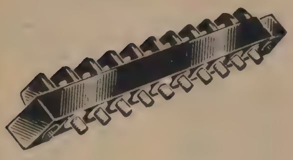
SERIES 150, 151 AND 152 (UL RECOGNIZED)

	TYPE 150 Net Each, Lots of				TYPE 150-Y Net Each, Lots of				TYPE 151 Net Each, Lots of				TYPE 152 Net Each, Lots of			
Con-tacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
1	1-150	$1.67	$1.31	$1.10	1-150-Y	$2.00	$1.60	$1.31	1-151	$2.30	$1.85	$1.56	1-152	$4.62	3.70	$3.10
2	2-150	2.08	1.67	1.38	2-150-Y	2.86	2.29	1.92	2-151	3.76	3.01	2.50	2-152	6.62	5.28	4.40
3	3-150	3.05	2.45	2.04	3-150-Y	3.98	3.18	2.66	3-151	5.57	4.47	3.73	3-152	9.15	7.32	6.10
4	4-150	3.83	3.07	2.59	4-150-Y	5.26	4.23	3.51	4-151	7.24	5.80	4.84	4-152	11.59	9.28	7.73
5	5-150	4.67	3.76	3.14	5-150-Y	6.42	5.15	4.31	5-151	8.95	7.18	5.99	5-152	14.02	11.22	9.35
6	6-150	5.59	4.48	3.76	6-150-Y	7.59	6.09	5.09	6-151	10.62	8.50	7.10	6-152	16.55	13.24	11.04
7	7-150	6.44	5.16	4.32	7-150-Y	8.68	6.96	5.80	7-151	12.35	9.89	8.23	7-152	....	....	....
8	8-150	7.39	5.92	4.92	8-150-Y	9.93	7.95	6.63	8-151	14.02	11.22	9.35	8-152	....	....	....
9	9-150	8.18	6.56	5.45	9-150-Y	11.14	8.91	7.44	9-151	....	....	....	9-152	....	....	....
10	10-150	9.05	7.24	6.04	10-150-Y	12.35	9.89	8.23	10-151	....	....	....	10-152	....	....	....

	Type 164	Type 171	Type 172	Type 173	Type 174	Type 540	Type 541	Type 542
Size, W. × H.	⅞" × 13/32"	13/32" × 5/16"	⅜" × 5/16"	⅜" × ½"	⅜" × ½" × ½"	1⅛" × 39/64"	1⅜" × 11/16"	1⅝" × ⅞"
Barrier spacing	⅜"	¼"	¼"	⅜"	⅜"	⅜"	7/16"	9/16"
Mtg. centers	5/16"	....	.250"	....	....	5/16"	27/64"	½"
Mtg. hole dia.	.171/.175"	.125"	.125"	.125"	.156"	.160"	.175/.185"	.209"
Screw size	6-32	2-56	2-56	4-40*	4-40	5-40	6-32	8-32
Max. wire size	#14	#18	#18	#16	#16	#16	#14	#10
Max. Vrms.	1100	1000	1000	1000	1000	2300	2800	4000

*Sems type with lockwasher.

SERIES 176



Barrier terminal strips designed for flow solder termination to P.C. board conductor paths. Blocks listed are for 1/16" P.C. boards. To order blocks for ⅛" P.C. boards, change last digit to 3 (e.g., 2-176-3); same prices apply.

Cinch No.	Contacts	Net Each, Lots of		
		1-24	25-49	50-99
2-176-2	2	$1.85	$1.49	$1.26
3-176-2	3	2.11	1.72	1.41
4-176-2	4	2.34	1.91	1.63
5-176-2	5	2.57	2.06	1.75
6-176-2	6	2.81	2.28	1.92
7-176-2	7	3.06	2.44	2.05
8-176-2	8	3.27	2.64	2.24
9-176-2	9	3.57	2.84	2.40
10-176-2	10	3.83	3.10	2.60

ACCESSORIES FOR BARRIER TERMINALS

JUMPERS

Cinch No.	For Series	Net Each, Lots of		
		1-24	25-49	50-99
95B	142	$0.59	$0.44	$0.40
140J-1	140	.30	.27	.23
141J	141	.30	.27	.23
141J-1	141	.40	.30	.27
142J-1	142*	.40	.30	.27
142J-2	142*	.30	.27	.23
540J	540	.97	.91	.76
541J	541	1.21	.95	.79
542J	542	1.26	1.00	.91

*Also fits 542 series.

SOLDER TERMINALS

Cinch Number		Net Each, Lots of		
W-Type	¾ W-Type	1-24	25-49	50-99
W-140†	¾ W-140	$0.40	$0.38	$0.35
W-141†	¾ W-141	.40	.38	.35
W-142†	¾ W-142	.47	.40	.38
W-150	....	.73	.63	.51
W-151	....	1.03	.83	.71
W-152	....	1.92	1.54	1.26

†Change prefix W to Y for Y-type terminals; prices slightly higher

QUICK-CLAMP TERMINALS

Simplifies engaging of wires to barrier blocks. Set includes two mating clamps and one screw. No. QC-1 accommodates wire sizes 14 thru 22. No. QC-2 accommodates wires sizes 8 thru 16.

Cinch No.	For Series	Net Each, Lots of		
		1-24	25-49	50-99
QC-1	141/541	$0.44	$0.33	$0.31
QC-2	142/542	.44	.33	.31

CABLE CLAMPS

For use with series 160, 161 and 162 fanning strips. Nickel plated brass. Screw Furnished.

Cinch No.	I.D.	Net Each, Lots of		
		1-24	25-49	50-99
CC-161-4	¼"	$1.06	$0.85	$0.70
CC-161-6	⅜"	1.25	1.06	.91
CC-161-8	½"	1.53	1.21	1.06
CC-161-10	⅝"	1.70	1.37	1.21
CC-161-12	¾"	1.92	1.58	1.36
CC 161-14	⅞"	2.03	1.70	1.45

SERIES 164 (UL RECOGNIZED)

	TYPE 164				TYPE 164-¾ W				TYPE 164-Y			
		Net Each, Lots of				Net Each, Lots of				Net Each, Lots of		
Contacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	50-49	25-99
1	1-164	$0.57	$0.49	$0.40	1-164-¾ W	$0.59	$0.53	$0.47	1-164-Y	$0.59	$0.53	$0.47
2	2-164	.64	.55	.49	2-164-¾ W	.79	.61	.55	2-164-Y	.71	.69	.55
3	3-164	.83	.62	.57	3-164-¾ W	1.01	.83	.65	3-164-Y	1.01	.83	.65
4	4-164	1.01	.86	.70	4-164-¾ W	1.37	1.07	.95	4-164-Y	1.37	1.07	.95
5	5-164	1.20	.99	.87	5-164-¾ W	1.57	1.34	1.08	5-164-Y	1.57	1.34	1.08
6	6-164	1.42	1.12	.97	6-164-¾ W	1.85	1.50	1.32	6-164-Y	1.85	1.50	1.32
7	7-164	1.63	1.34	1.08	7-164-¾ W	2.15	1.73	1.42	7-164-Y	2.15	1.73	1.42
8	8-164	1.80	1.48	1.25	8-164-¾ W	2.39	1.91	1.63	8-164-Y	2.39	1.91	1.63
9	9-164	1.91	1.59	1.35	9-164-¾ W	2.58	2.15	1.76	9-164-Y	2.58	2.15	1.76
10	10-164	2.22	1.78	1.49	10-164-¾ W	2.94	2.34	1.94	10-164-Y	2.94	2.34	1.94
11	11-164	2.39	1.91	1.63	11-164-¾ W	3.19	2.57	2.20	11-164-Y	3.19	2.57	2.20
12	12-164	2.57	2.06	1.76	12-164-¾ W	3.36	2.75	2.33	12-164-Y	3.36	2.75	2.33
13	13-164	2.75	2.27	1.85	13-164-¾ W	3.76	3.05	2.52	13-164-Y	3.76	3.05	2.52
14	14-164	2.99	2.40	1.97	14-164-¾ W	3.99	3.23	2.67	14-164-Y	3.99	3.23	2.67
15	15-164	3.22	2.55	2.18	15-164-¾ W	4.26	3.43	2.90	15-164-Y	4.26	3.43	2.90

Series 164 terminal blocks are available with up to 21 positions, prices on request.

SERIES 172 (UL RECOGNIZED)

	TYPE 172				TYPE 172-¾ W				TYPE 172-Y			
		Net Each, Lots of				Net Each, Lots of				Net Each, Lots of		
Contacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	50-49	25-99
2	2-172	$1.09	$0.88	$0.78	2-172-¾ W	$1.26	$0.99	$0.86	2-172-Y	$1.26	$0.99	$0.86
3	3-172	1.36	1.09	.94	3-172-¾ W	1.60	1.28	1.06	3-172-Y	1.60	1.28	1.06
4	4-172	1.64	1.35	1.13	4-172-¾ W	1.95	1.57	1.29	4-172-Y	1.95	1.57	1.29
5	5-172	1.95	1.57	1.29	5-172-¾ W	2.28	1.79	1.57	5-172-Y	2.28	1.79	1.57
6	6-172	2.19	1.74	1.50	6-172-¾ W	2.63	2.10	1.74	6-172-Y	2.63	2.10	1.74
7	7-172	2.46	2.03	1.67	7-172-¾ W	2.99	2.39	2.03	7-172-Y	2.99	2.39	2.03
8	8-172	2.79	2.19	1.81	8-172-¾ W	3.30	2.68	2.20	8-172-Y	3.30	2.68	2.20
9	9-172	2.99	2.41	2.07	9-172-¾ W	3.61	2.93	2.42	9-172-Y	3.61	2.93	2.42
10	10-172	3.30	2.68	2.21	10-172-¾ W	3.96	3.16	2.70	10-172-Y	3.96	3.16	2.70
11	11-172	3.58	2.86	2.40	11-172-¾ W	4.33	3.48	2.92	11-172-Y	4.33	3.48	2.92
12	12-172	3.86	3.09	2.58	12-172-¾ W	4.66	3.73	3.12	12-172-Y	4.66	3.73	3.12
13	13-172	4.12	3.30	2.80	13-172-¾ W	5.02	4.05	3.40	13-172-Y	5.02	4.05	3.40
14	14-172	4.39	3.53	2.94	14-172-¾ W	5.32	4.28	3.60	14-172-Y	5.32	4.28	3.60

*For two-sided W series, change ¾ W to W; same prices.

SERIES 171, 173 AND 174 (UL RECOGNIZED)

	TYPE 171				TYPE 173				TYPF 174			
		Net Each, Lots of				Net Each, Lots of				Net Each, Lots of		
Contacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
2	2-171	$0.59	$0.52	$0.47	2-173	$1.26	$1.04	$0.96	2-174	$1.06	$0.94	$0.78
3	3-171	.79	.59	.53	3-173	1.74	1.42	1.12	3-174	1.42	1.10	1.00
4	4-171	.91	.78	.63	4-173	2.17	1.80	1.58	4-174	1.76	1.48	1.16
5	5-171	1.06	.88	.76	5-173	2.67	2.11	1.80	5-174	2.01	1.72	1.50
6	6-171	1.26	.98	.86	6-173	3.13	2.51	2.03	6-174	2.47	1.94	1.72
7	7-171	1.36	1.09	.91	7-173	3.74	2.81	2.43	7-174	2.71	2.17	1.88
8	8-171	1.49	1.24	.99	8-173	3.98	3.17	2.67	8-174	3.13	2.51	2.03
9	9-171	....	....	....	9-173	4.32	3.45	2.97	9-174	3.35	2.71	2.29
10	....	....	....	....	10-173	4.76	3.89	3.19	10-174	3.61	2.97	2.53

SERIES 540, 541 AND 542 (UL RECOGNIZED)

	TYPE 540				TYPE 541				TYPE 542			
		Net Each, Lots of				Net Each, Lots of				Net Each, Lots of		
Contacts	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99	Cinch No.	1-24	25-49	50-99
2	2-540	$1.34	$1.04	$0.92	2-541	$1.71	$1.46	$1.18	2-542	$1.89	$1.52	$1.23
3	3-540	1.76	1.41	1.17	3-541	2.04	1.68	1.44	3-542	2.26	1.89	1.55
4	4-540	2.15	1.73	1.42	4-541	2.44	1.94	1.64	4-542	2.74	2.15	1.89
5	5-540	2.24	1.78	1.50	5-541	2.74	2.15	1.89	5-542	3.16	2.54	2.12
6	6-540	2.97	2.39	2.00	6-541	3.24	2.61	2.18	6-542	3.57	2.88	2.48
7	7-540	2.69	2.28	1.87	7-541	3.58	2.78	2.38	7-542	4.08	3.26	2.74
8	8-540	3.11	2.51	2.15	8-541	3.75	3.03	2.54	8-542	4.48	3.57	3.00
9	9-540	3.40	2.71	2.31	9-541	4.13	3.35	2.78	9-542	4.91	3.94	3.35
10	10-540	3.74	2.99	2.51	10-541	4.43	3.54	2.96	10-542	5.38	4.32	3.57
11	11-540	4.02	3.23	2.69	11-541	4.74	3.80	3.22	11-542	5.84	4.65	3.90
12	12-540	4.32	3.44	2.94	12-541	5.20	4.17	3.48	12-542	6.27	5.02	4.18
13	13-540	4.64	3.74	3.11	13-541	5.45	4.38	3.69	13-542	6.69	5.38	4.48
14	14-540	4.93	3.96	3.29	14-541	5.84	4.65	3.90	14-542	7.10	5.70	4.76
15	15-540	5.21	4.17	3.48	15-541	6.15	4.95	4.14	15-542	7.06	6.04	5.09
16	16-540	5.53	4.46	3.74	16-541	6.45	5.18	4.34	16-542	8.03	6.39	5.38
17	17-540	5.82	4.69	3.94	17-541	6.92	5.48	4.58	17-542	8.49	6.75	5.66
18	18-540	6.13	4.93	4.11	18-541	7.12	5.72	4.80	18-542	8.90	7.10	5.97
19	19-540	6.45	5.14	4.32	19-541	7.46	6.03	5.06	19-542	9.38	7.44	6.27
20	20-540	6.73	5.41	4.54	20-541	7.83	6.29	5.24	20-542	9.72	7.82	6.58
21	21-540	7.06	5.64	4.70	21-541	8.14	6.58	5.45	21-542	10.18	8.15	6.83
22	22-540	7.36	5.86	4.93	22-541	8.56	6.83	5.72	22-542	10.82	8.55	7.11
23	23-540	7.62	6.13	5.13	23-541	8.91	7.11	5.98	23-542	11.06	8.90	7.42
24	24-540	7.94	6.41	5.35	24-541	9.17	7.40	6.17	24-542	11.50	9.17	7.73
25	25-540	8.23	6.56	5.53	25-541	9.56	7.70	6.36	25-542	11.96	9.57	8.03
26	26-540	8.60	6.82	5.76	26-541	9.87	7.89	6.63	26-542	12.40	9.94	8.25

Series 540 terminal blocks are available with up to 31 positions, Series 541 up to 30 positions; prices on request.

MARKER STRIPS FOR BARRIER TERMINAL BLOCKS

100 SERIES MARKER STRIPS

For labelling terminal positions on barrier terminal blocks and insulating exposed portions of terminals from metallic mounting surface. Mounting holes correspond with those on appropriate barrier terminal block. Made of $^1/_{32}$" flame-retardant material and numbered sequentially from 1 with legible white numerals.

Cinch Number*	For Plain, -W or -¾ W Terminals Net Each, Lots of			For -Y Terminals Net Each, Lots of		
	1-24	25-49	50-99	1-24	25-49	50-99
	FOR ALL SERIES 140					
MS-2-140	$0.32	$0.24	$0.22	$0.36	$0.28	$0.24
MS-3-140	.32	.24	.22	.36	.28	.24
MS-4-140	.32	.24	.22	.36	.28	.24
MS-5-140	.32	.24	.22	.36	.28	.24
MS-6-140	.32	.24	.22	.36	.28	.24
MS-7-140	.36	.28	.24	.40	.32	.26
MS-8-140	.36	.28	.24	.40	.32	.26
MS-9-140	.36	.28	.24	.40	.32	.26
MS-10-140	.40	.32	.26	.44	.36	.32
MS-11-140	.40	.32	.26	.44	.36	.32
MS-12-140	.40	.32	.26	.44	.36	.32
MS-13-140	.44	.36	.32	.50	.40	.34
MS-14-140	.44	.36	.32	.50	.40	.34
MS-15-140	.44	.36	.32	.50	.40	.34
MS-16-140	.50	.40	.34	.54	.44	.38
MS-17-140	.50	.40	.34	.54	.44	.38
MS-18-140	.50	.40	.34	.54	.44	.38
MS-19-140	.54	.44	.38	.61	.48	.40
MS-20-140	.54	.44	.38	.61	.48	.40
MS-22-140	1.30	1.04	.88	1.39	1.12	.93
MS-23-140	1.30	1.04	.88	1.39	1.12	.93
MS-24-140	1.58	1.26	1.04	1.62	1.30	1.10
MS-25-140	1.58	1.26	1.04	1.62	1.30	1.10
	FOR ALL SERIES 141					
MS-2-141	$0.32	$0.24	$0.22	$0.36	$0.28	$0.24
MS-3-141	.32	.24	.22	.40	.32	.26
MS-4-141	.32	.24	.22	.40	.32	.26
MS-5-141	.36	.28	.24	.40	.32	.26
MS-6-141	.36	.28	.24	.40	.32	.26
MS-7-141	.36	.28	.24	.44	.36	.32
MS-8-141	.40	.32	.26	.44	.36	.32
MS-9-141	.40	.32	.26	.44	.36	.32
MS-10-141	.40	.32	.26	.50	.40	.34
MS-11-141	.44	.36	.32	.50	.40	.34
MS-12-141	.44	.36	.32	.54	.44	.38
MS-13-141	.50	.40	.34	.54	.44	.38
MS-14-141	.50	.40	.34	.61	.48	.40
MS-15-141	.54	.44	.38	.61	.48	.40
MS-16-141	.54	.44	.38	.63	.52	.42
MS-17-141	.61	.48	.40	.63	.52	.42
MS-18-141	.61	.48	.40	.63	.52	.48
MS-19-141	.63	.52	.42	.68	.54	.48
MS-20-141	.63	.52	.42	.68	.54	.48
	FOR ALL SERIES 142					
MS-2-142	$0.32	$0.24	$0.22	$0.36	$0.28	$0.24
MS-3-142	.32	.24	.22	.40	.32	.26
MS-4-142	.36	.29	.24	.40	.32	.26
MS-5-142	.36	.28	.24	.40	.32	.26
MS-6-142	.36	.28	.24	.44	.36	32
MS-7-142	.40	.32	.26	.44	.36	.32
MS-8-142	.40	.32	.26	.50	.40	.34
MS-9-142	.44	.36	.32	.50	.40	.34
MS-10-142	.50	.40	.34	.54	.44	.38
MS-11-142	.50	.40	.34	.54	.44	.38
MS-12-142	.54	.44	.38	.61	.48	.40
MS-13-142	.54	.44	.38	.61	.48	.40
MS-14-142	.61	.48	.40	.63	.52	.42
MS-15-142	.61	.48	.40	.68	.54	.48
MS-16-142	.68	.54	.48	.80	.63	.54
MS-17-142	.74	.58	.50	.80	.63	.54
	FOR ALL SERIES 150					
MS-2-150	$0.40	$0.32	$0.26	$0.50	$0.40	$0.34
MS-3-150	.40	.32	.26	.50	.40	.34
MS-4-150	.44	.36	.32	.54	.44	.38
MS-5-150	.44	.36	.32	.54	.44	.38
MS-6-150	.44	.36	.32	.54	.44	.38
MS-7-150	.50	.40	.34	.61	.48	.40
MS-8-150	.50	.40	.34	.61	.48	.40
MS-9-150	.54	.44	.38	.61	.48	.40
MS-10-150	.61	.48	.40	.63	.52	.42

MARKER STRIPS FOR SERIES 151 and 152

Cinch Number#	For Series 151 Net Each, Lots of			For Series 152 Net Each, Lots of		
	1-24	25-49	50-99	1-24	25-49	50-99
MS-2-	$0.44	$0.36	$0.32	$0.44	$0.36	$0.32
MS-3-	.44	.36	.32	.54	.44	.38
MS-4-	.50	.40	.34	.63	.52	.42
MS-5-	.54	.44	.38	.68	.58	.50
MS-6-	.63	.52	.42	.82	.66	.56
MS-7-	.68	.54	.48	....	....	....
MS-8-	.74	.58	.50	....	....	....

*To order marker strips to fit -Y terminals, add suffix -Y to Cinch Part Number; i.e., **MS-3-140-Y**.
#Add desired series number as suffix to Cinch Part Number; i.e., **MS-4-151**.

500 SERIES MARKER STRIPS

For labelling terminal positions on "500" series barrier terminal blocks. Made of $^1/_{16}$" Bakelite, ¼" wide. Numbered sequentially from 1 with ⅛" legible white numerals. Mounted on top of terminal block as illustrated. Mounting screws furnished.

MARKER STRIPS FOR 540

Cinch No.	Term.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
MSX-2-540	2	$0.40	$0.32	$0.26	$0.24	$0.22
MSX-3-540	3	.40	.32	.26	.24	.22
MSX-4-540	4	.40	.32	.26	.24	.22
MSX-5-540	5	.40	.32	.26	.24	.22
MSX-6-540	6	.40	.32	.26	.24	.22
MSX-7-540	7	.40	.32	.26	.24	.22
MSX-8-540	8	.40	.32	.26	.24	.22
MSX-9-540	9	.40	.32	.26	.24	.22
MSX-10-540	10	.40	.32	.26	.24	.22
MSX-11-540	11	.44	.36	.32	.26	.24
MSX-12-540	12	.44	.36	.32	.26	.24
MSX-13-540	13	.44	.36	.32	.26	.24
MSX-14-540	14	.44	.36	.32	.26	.24
MSX-15-540	15	.44	.36	.32	.26	.24
MSX-16-540	16	.44	.36	.32	.26	.24
MSX-17-540	17	.50	.40	.34	.28	.26
MSX-18-540	18	.50	.40	.34	.28	.26
MSX-19-540	19	.50	.40	.34	.28	.26
MSX-20-540	20	.50	.40	.34	.28	.26
MSX-21-540	21	.50	.40	.34	.28	.26
MSX-22-540	22	.54	.44	.38	.32	.28
MSX-23-540	23	.54	.44	.38	.32	.28
MSX-24-540	24	.63	.52	.42	.36	.34
MSX-25-540	25	.63	.52	.42	.36	.34
MSX-26-540	26	.63	.52	.42	.36	.34
MSX-27-540	27	.63	.52	.42	.36	.34
MSX-28-540	28	.63	.52	.42	.36	.34
MSX-29-540	29	.68	.54	.48	.38	.36
MSX-30-540	30	.68	.54	.48	.38	.36
MSX-31-540	31	.68	.54	.48	.38	.36

MARKER STRIPS FOR 541

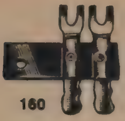
MSX-2-541	2	$0.40	$0.32	$0.26	$0.24	$0.22
MSX-3-541	3	.40	.32	.26	.24	.22
MSX-4-541	4	.40	.32	.26	.24	.22
MSX-5-541	5	.40	.32	.26	.24	.22
MSX-6-541	6	.40	.32	.26	.24	.22
MSX-7-541	7	.40	.32	.26	.24	.22
MSX-8-541	8	.40	.32	.26	.24	.22
MSX-9-541	9	.40	.32	.26	.24	.22
MSX-10-541	10	.40	.32	.26	.24	.22
MSX-11-541	11	.40	.32	.26	.24	.22
MSX-12-541	12	.44	.36	.32	.26	.24
MSX-13-541	13	.44	.36	.32	.26	.24
MSX-14-541	14	.44	.36	.32	.26	.24
MSX-15-541	15	.44	.36	.32	.26	.24
MSX-16-541	16	.44	.36	.32	.26	.24
MSX-17-541	17	.50	.40	.34	.28	.26
MSX-18-541	18	.50	.40	.34	.28	.26
MSX-19-541	19	.50	.40	.34	.28	.26
MSX-20-541	20	.50	.40	.34	.28	.26
MSX-21-541	21	.50	.40	.34	.28	.26
MSX-22-541	22	.50	.40	.34	.28	.26
MSX-23-541	23	.61	.48	.40	.34	.32
MSX-24-541	24	.63	.52	.42	.36	.34
MSX-25-541	25	.63	.52	.42	.36	.34
MSX-26-541	26	.63	.52	.42	.36	.34
MSX-27-541	27	.63	.52	.42	.36	.34
MSX-28-541	28	.63	.52	.42	.36	.34
MSX-29-541	29	.68	.54	.48	.38	.36
MSX-30-541	30	.68	.54	.48	.38	.36

MARKER STRIPS FOR 542

MSX-2-542	2	$0.40	$0.32	$0.26	$0.24	$0.22
MSX-3-542	3	.40	.32	.26	.24	.22
MSX-4-542	4	.40	.32	.26	.24	.22
MSX-5-542	5	.40	.32	.26	.24	.22
MSX-6-542	6	.40	.32	.26	.24	.22
MSX-7-542	7	.40	.32	.26	.24	.22
MSX-8-542	8	.44	.36	.32	.26	.24
MSX-9-542	9	.44	.36	.32	.26	.24
MSX-10-542	10	.44	.36	.32	.26	.24
MSX-11-542	11	.44	.36	.32	.26	.24
MSX-12-542	12	.50	.40	.34	.28	.26
MSX-13-542	13	.50	.40	.34	.28	.26
MSX-14-542	14	.50	.40	.34	.28	.26
MSX-15-542	15	.50	.40	.34	.28	.26
MSX-16-542	16	.61	.48	.40	.34	.32
MSX-17-542	17	.61	.48	.40	.34	.32
MSX-18-542	18	.61	.48	.40	.34	.32
MSX-19-542	19	.63	.52	.42	.36	.34
MSX-20-542	20	.63	.52	.42	.36	.34
MSX-21-542	21	.63	.52	.42	.36	.34
MSX-22-542	22	.63	.52	.42	.36	.34
MSX-23-542	23	.63	.52	.42	.36	.34
MSX-24-542	24	.68	.54	.48	.38	.36
MSX-25-542	25	.68	.54	.48	.38	.36
MSX-26-542	26	.68	.54	.48	.38	.36

Cinch Barrier Block Fanning Strips

Connector Division
TRW Electronic Components Group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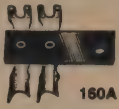
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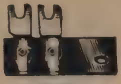
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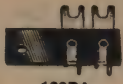
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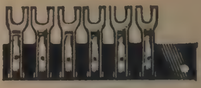

161, 162

Convenient means for rapidly connecting or disconnecting wiring from barrier terminal blocks. Facilitate cable or harness wiring and minimize the possibility of subsequent wiring errors. Available in both straight and angle types. Black XP phenolic mount, $^3/_{32}$" thick × ½" wide, is supplied with hole in either right or left side; secures cable with lacing twine. For larger sizes, use of a cable clamp is recommended. Terminals are .032" cadmium-plated brass. **All 160 Series** fit barrier block 140 Series, ⅜" terminal centers. **Series 162** fit barrier block 142 Series, $^9/_{16}$" terminal centers; ⅝" wide. **Series 161** fit barrier block 141 Series, $^7/_{16}$" terminal centers.

STRAIGHT TYPE—160 SERIES

Cinch Number	No. of Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-160-*	2	$0.90	$0.75	$0.67	$0.57	$0.54
3-160-*	3	1.10	.90	.76	.67	.59
4-160-*	4	1.33	1.10	.91	.76	.75
5-160-*	5	1.51	1.30	1.10	.86	.83
6-160-*	6	1.77	1.45	1.20	.91	.90
7-160-*	7	1.98	1.62	1.33	1.10	1.06
8-160-*	8	2.17	1.77	1.47	1.21	1.18
9-160-*	9	2.53	1.98	1.71	1.33	1.32
10-160-*	10	2.74	2.24	1.87	1.47	1.34
11-160-*	11	3.03	2.38	2.06	1.65	1.51
12-160-*	12	3.38	2.65	2.29	1.85	1.77
13-160-*	13	3.65	2.97	2.53	1.98	1.88
14-160-*	14	3.85	3.07	2.58	2.08	1.96
15-160-*	15	3.99	3.18	2.65	2.17	2.08
16-160-*	16	4.32	3.47	2.97	2.34	2.24
17-160-*	17	4.27	3.39	2.89	2.26	2.23
18-160-*	18	4.66	3.71	3.15	2.54	2.38
19-160-*	19	4.92	3.89	3.35	2.63	2.57
20-160-*	20	5.10	4.09	3.47	2.74	2.62
21-160-*	21	5.38	4.32	3.64	2.86	2.74

STRAIGHT TYPE—160B SERIES

2-160B-*	2	$1.10	$0.90	$0.76	$0.67	$0.59
3-160B-*	3	1.33	1.10	.91	.76	.75
4-160B-*	4	1.77	1.42	1.20	.91	.90
5-160B-*	5	2.08	1.70	1.46	1.16	1.10
6-160B-*	6	2.53	1.98	1.71	1.33	1.32
7-160B-*	7	2.74	2.24	1.87	1.47	1.46
8-160B-*	8	3.36	2.65	2.29	1.85	1.77
9-160B-*	9	3.71	3.03	2.54	1.98	1.88
10-160B-*	10	3.99	3.18	2.65	2.17	2.08
11-160B-*	11	4.46	3.54	3.03	2.38	2.33
12-160B-*	12	4.66	3.71	3.15	2.54	2.38
13-160B-*	13	5.10	4.09	3.47	2.74	2.62
14-160B-*	14	5.54	4.46	3.79	3.03	2.86
15-160B-*	15	5.94	4.73	3.93	3.16	3.03
16-160B-*	16	6.22	4.98	4.24	3.38	3.18
17-160B-*	17	6.32	5.09	4.27	3.39	3.23
18-160B-*	18	7.11	5.65	4.73	3.85	3.64
19-160B-*	19	7.53	6.07	5.04	4.08	3.85
20-160B-*	20	7.82	6.22	5.24	4.21	3.94
21-160B-*	21	8.16	6.54	5.52	4.39	4.21

STRAIGHT TYPE—161 SERIES

Cinch Number	No. of Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-161-*	2	$0.95	$0.83	$0.69	$0.59	$0.57
3-161-*	3	1.21	.95	.83	.69	.67
4-161-*	4	1.33	1.10	.91	.76	.75
5-161-*	5	1.62	1.32	1.16	.90	.86
6-161-*	6	1.85	1.47	1.30	.95	.91
7-161-*	7	2.08	1.71	1.46	1.16	1.10
8-161-*	8	2.29	1.85	1.51	1.32	1.30
9-161-*	9	2.53	1.98	1.71	1.33	1.32
10-161-*	10	2.79	2.29	1.88	1.51	1.46
11-161-*	11	3.16	2.58	2.17	1.77	1.65
12-161-*	12	3.47	2.75	2.34	1.87	1.82
13-161-*	13	3.71	3.03	2.54	1.98	1.95
14-161-*	14	3.89	3.15	2.63	2.10	2.06
15-161-*	15	4.09	3.23	2.74	2.24	2.10
16-161-*	16	4.34	3.51	3.02	2.34	2.27
17-161-*	17	4.31	3.49	2.93	2.29	2.24
18-161-*	18	4.92	3.89	3.23	2.62	2.40
19-161-*	19	4.98	3.99	3.36	2.65	2.58
20-161-*	20	5.26	4.24	3.51	2.79	2.65

STRAIGHT TYPE—162 SERIES

2-162-*	2	$1.10	$0.90	$0.76	$0.67	$0.59
3-162-*	3	1.30	1.06	.86	.75	.69
4-162-*	4	1.51	1.30	1.10	.86	.83
5-162-*	5	1.77	1.45	1.20	.91	.90
6-162-*	6	1.98	1.77	1.47	1.21	1.18
7-162-*	7	2.04	1.77	1.47	1.21	1.16
8-162-*	8	2.53	1.98	1.71	1.33	1.32
9-162-*	9	2.63	2.10	1.77	1.46	1.45
10-162-*	10	2.97	2.34	1.98	1.62	1.51
11-162-*	11	3.23	2.62	2.24	1.82	1.71
12-162-*	12	3.65	2.97	2.53	1.98	1.88
13-162-*	13	3.85	3.07	2.58	2.08	1.96
14-162-*	14	3.99	3.16	2.65	2.17	2.08
15-162-*	15	4.27	3.47	2.86	2.33	2.27
16-162-*	16	4.46	3.54	3.03	2.38	2.33
17-162-*	17	4.45	3.53	3.01	2.43	2.26

ANGLE TYPE—160A SERIES

Cinch Number	No. of Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-499
2-160A-*	2	$1.10	$0.90	$0.76	$0.67	$0.59
3-160A-*	3	1.33	1.10	.91	.76	.75
4-160A-*	4	1.77	1.45	1.20	.91	.90
5-160A-*	5	2.08	1.70	1.46	1.16	1.10
6-160A-*	6	2.53	1.98	1.71	1.33	1.32
7-160A-*	7	2.74	2.24	1.87	1.47	1.46
8-160A-*	8	3.36	2.65	2.29	1.85	1.77
9-160A-*	9	3.71	3.03	2.54	1.98	1.88
10-160A-*	10	3.99	3.18	2.65	2.17	2.08
11-160A-*	11	4.46	3.54	3.03	2.38	2.33
12-160A-*	12	4.66	3.71	3.15	2.54	2.38
13-160A-*	13	5.10	4.09	3.47	2.74	2.62
14-160A-*	14	5.54	4.46	3.79	3.03	2.86
15-160A-*	15	5.94	4.73	3.93	3.16	3.03
16-160A-*	16	6.22	4.98	4.24	3.38	3.18
17-160A-*	17	6.32	5.09	4.27	3.39	3.23
18-160A-*	18	7.11	5.65	4.73	3.85	3.64
19-160A-*	19	7.53	6.07	5.04	4.08	3.85
20-160A-*	20	7.82	6.22	5.24	4.21	3.94
21-160A-*	21	8.16	6.54	5.52	4.39	4.21

ANGLE TYPE—106BA SERIES

2-160BA-*	2	$1.10	$0.90	$0.76	$0.67	$0.59
3-160BA-*	3	1.33	1.10	.91	.76	.75
4-160BA-*	4	1.77	1.45	1.20	.91	.90
5-160BA-*	5	2.08	1.70	1.46	1.16	1.10
6-160BA-*	6	2.53	1.98	1.71	1.33	1.32
7-160BA-*	7	2.74	2.24	1.87	1.47	1.46
8-160BA-*	8	3.36	2.65	2.29	1.85	1.77
9-160BA-*	9	3.71	3.03	2.54	1.98	1.88
10-160BA-*	10	3.99	3.18	2.65	2.17	2.08
11-160BA-*	11	4.46	3.54	3.03	2.38	2.33
12-160BA-*	12	4.66	3.71	3.15	2.54	2.38
13-160BA-*	13	5.10	4.09	3.47	2.74	2.62
14-160BA-*	14	5.54	4.46	3.79	3.03	2.86
15-160BA-*	15	5.94	4.73	3.93	3.16	3.03
16-160BA-*	16	6.22	4.98	4.24	3.38	3.18
17-160BA-*	17	6.32	5.09	4.27	3.39	3.23
18-160BA-*	18	7.11	5.65	4.73	3.85	3.64
19-160BA-*	19	7.53	6.07	5.04	4.08	3.85
20-160BA-*	20	7.82	6.22	5.24	4.21	3.94
21-160BA-*	21	8.16	6.54	5.52	4.39	4.21

ANGLE TYPE—161A SERIES

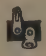
Cinch Number	No. of Term.	Net Each, Lots of 1-24	25-49	50-99	100-249	250-449
2-161A-*	2	$1.10	$0.90	$0.76	$0.67	$0.59
3-161A-*	3	1.33	1.10	.91	.76	.75
4-161A-*	4	1.77	1.45	1.20	.91	.90
5-161A-*	5	2.08	1.70	1.46	1.16	1.10
6-161A-*	6	2.53	1.98	1.71	1.33	1.32
7-161A-*	7	2.74	2.24	1.87	1.47	1.46
8-161A-*	8	3.36	2.65	2.29	1.85	1.77
9-161A-*	9	3.71	3.03	2.54	1.98	1.88
10-161A-*	10	3.99	3.18	2.65	2.17	2.08
11-161A-*	11	4.46	3.54	3.03	2.38	2.33
12-161A-*	12	4.66	3.71	3.15	2.54	2.38
13-161A-*	13	5.10	4.09	3.47	2.74	2.62
14-161A-*	14	5.54	4.46	3.79	3.03	2.86
15-161A-*	15	5.94	4.73	3.93	3.16	3.03
16-161A-*	16	6.22	4.98	4.24	3.38	3.18
17-161A-*	17	6.32	5.09	4.27	3.39	3.23
18-161A-*	18	7.11	5.65	4.73	3.85	3.64
19-161A-*	19	7.53	6.07	5.04	4.08	3.85
20-161A-*	20	7.82	6.22	5.83	4.21	3.94

ANGLE TYPE—162A SERIES

2-162A-*	2	$1.30	$1.06	$0.86	$0.75	$0.69
3-162A-*	3	1.51	1.30	1.21	.86	.83
4-162A-*	4	1.98	1.62	1.33	1.10	1.06
5-162A-*	5	2.29	1.85	1.51	1.30	1.21
6-162A-*	6	2.63	2.10	1.82	1.47	1.39
7-162A-*	7	2.97	2.34	1.98	1.62	1.48
8-162A-*	8	3.65	3.12	2.53	1.98	1.87
9-162A-*	9	3.89	3.15	2.63	2.10	2.06
10-162A-*	10	4.27	3.47	2.86	2.33	2.24
11-162A-*	11	4.66	3.71	3.15	2.54	2.38
12-162A-*	12	5.10	4.09	3.47	2.74	2.62
13-162A-*	13	5.41	4.34	3.65	3.02	2.75
14-162A-*	14	5.71	4.52	3.85	3.09	3.02
15-162A-*	15	6.07	4.92	4.09	3.23	3.12
16-162A-*	16	6.54	5.24	4.39	3.51	3.36
17-162A-*	17	6.57	5.28	4.45	3.53	3.36

*Add suffix L for cable clamp hole on left side (e.g., 17-160-L); add suffix R for cable clamp hole on right side (e.g., 17-160-R).

LUG-TYPE TERMINAL STRIPS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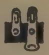
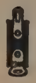

51A

51B

51C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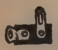
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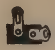
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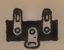
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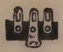
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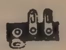
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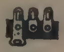
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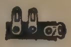
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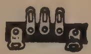
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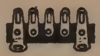
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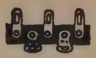
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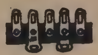
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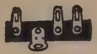
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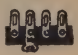
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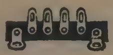
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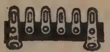
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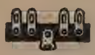
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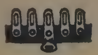
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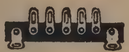
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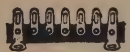
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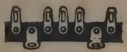
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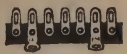
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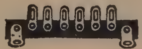
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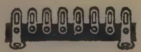
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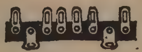
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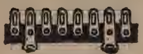

56C

These terminal strips are handy for neatly supporting resistors, capacitors, etc. in circuit wiring. Cadmium-plated steel lugs are spaced on ⅜" centers with 0.140" dia. mounting holes. Chocolate-colored phenolic is used. Strips are 1/16" thick and ⅜" wide.

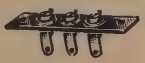
Cinch No.*	Mtg. Ctrs.	Net Ea., Lots		Cinch No.*	Mtg. Ctrs.	Net Ea., Lots	
		1-24	25-49*			1-24	25-49*
51	....	$0.32	$0.28	53C	¾"	$0.40	$0.33
51A	....	0.32	0.28	53E	....	.35	.30
51B	....	0.32	0.28	53F	....	.35	.30
51C	....	.32	.28	54	1⅞"	.44	.38
51F	....	.39	.33	54A	1⅞"	.44	.39
51L	....	.39	.33	54B	....	.39	.33
51R	....	.39	.33	54C	....	.40	.33
52	....	.37	.31	55	2¼"	.46	.40
52A	....	.38	.32	55A	2¼"	.46	.40
52B	....	.37	.31	55B	1½"	.46	.40
52C	....	.38	.32	55C	1½"	.46	.40
52R	....	.39	.33	56	2⅝"	.47	.41
53	1½"	.39	.33	56A	2⅝"	.48	.41
53A	1½"	.40	.33	56B	1⅞"	.47	.41
53B	¾"	.39	.33	56C	1⅞"	.48	.41

170 SERIES SOLDER TERMINAL STRIPS

Heavy solder terminals are made of .032" brass, pretinned; mounted on ⅜" centers. Black molded phenolic. Size, 5/16" w. × ¼" thick. Mounting holes, ⅜" from center of end terminals.

Cinch Number	Contacts	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
1-170	1	$0.75	$0.68	$0.55	$0.47	$0.46
2-170	2	.90	.75	.69	.61	.57
3-170	3	1.19	.96	.81	.72	.69
4-170	4	1.39	1.15	.90	.75	.73
5-170	5	1.51	1.28	1.07	.82	.81
6-170	6	1.74	1.37	1.18	.93	.87
7-170	7	1.93	1.51	1.30	1.07	1.01
8-170	8	1.96	1.63	1.37	1.17	1.08
9-170	9	2.29	1.89	1.51	1.28	1.27
10-170	10	2.51	1.96	1.67	1.39	1.30

2000 Series


Screw Strips

SERIES 2000 TERMINAL STRIPS

Compact, sturdy terminal strips for wiring, etc. Phenolic insulation; cadmium-plated steel brackets with .140" dia. mounting holes centered 5/32" from bracket end. Terminals are tin-plated .019" brass spaced on 5/16" centers; last 2 digits of no. indicate no. of terminals (e.g., 2008 has 8 terminals).

Cinch No.	Mtg. Ctrs.	Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
2002	1"	$0.41	$0.40	$0.36	$0.31	$0.29
2003	1 5/16"	.46	.41	.40	.36	.31
2004	1⅝"	.47	.46	.41	.40	.36
2005	1 15/16"	.47	.46	.41	.40	.36
2006	2¼"	.53	.47	.43	.41	.40
2007	2 9/16"	.53	.47	.43	.41	.40
2008	2⅞"	.61	.52	.46	.43	.41
2009	3 3/16"	.68	.53	.47	.46	.43
2010	3½"	.68	.53	.47	.46	.53
2011	3 13/16"	.72	.57	.53	.47	.46
2012	4⅛"	.72	.57	.53	.47	.46
2013	4 7/16"	.77	.69	.57	.52	.47

SCREW TYPE TERMINAL STRIPS

Ideal design for chassis or breadboard layouts. Strips with 1 to 6 lugs are 1/16" thick XPC chocolate UL94HB; those with 7 to 10 terminals are 3/32" thick. Ends of screws are captivated to prevent removal; made of cadmium-plated steel. Terminals are cadmium-plated brass, spaced on 7/16" centers. Mounting holes .136" dia.

Cinch No.*	Mtg. Ctrs.	Net Ea., Lots		Cinch No.*	Mtg. Ctrs.	Net Ea., Lots	
		1-24	25-49*			1-24	25-49*
17-1	⅞"	$0.36	$0.31	17-6	3 1/16"	$0.87	$0.72
17-2	1 5/16"	.39	.36	17-7	3½"	1.07	.84
17-3	1¾"	.47	.39	17-8	3 15/16"	1.21	1.03
17-4	2 3/16"	.62	.51	17-9	4⅜"	1.51	1.14
17-5	2⅝"	.72	.57	17-10	4 13/16"	1.75	1.36

*Suffix indicates no. of terminals; e.g., 17-2 has 2 terminals.

★LARGER QUANTITY PRICES ON REQUEST.

TO-5 OR TO-18 LOW PROFILE TRANSISTOR SOCKETS

Mount directly to PC board with snug fit to prevent bleeding of solder and flux to opposite board surface. Chamfered socket holes minimize lead bending during insertion. Contact ends are watertight, formed so that solder and fluxes cannot enter barrelled contact to obstruct lead entry. TO-18 directly accepts TO-5. TO-5 accepts TO-18 if leads are left full length or formed to match TO-5 lead centers. Insulator molded from 20% glass filled nylon in black, natural, or green. Contacts are of beryllium copper gold plated. Maximum pin dia., 0.019". Max. pin depth, 0.200" ±0.010". Max. insertion force, 5 ounces; withdrawal force, ¼ ounce at 3 and 100 cycles. Voltage ratings at sea level, 1500 AC rms, 2000 VDC. Current rating, 2.5 amperes. Contact resistance, 0.005 ohms. Insulation resistance, 100,000 megs. Low profile, only .130" above PC board surface.

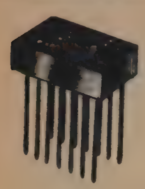
Cinch No.	Color	•Net Each, Lots of				
		1-24	25-49	50-99	100-249	250 Up
3-LPS-B	Black	$0.514	$0.414	$0.344	$0.284	$0.274
3-LPS-N	Natural	.514	.414	.344	.284	.274
3-LPS-G	Green	.514	.414	.344	.284	.274

•DUE TO THE INSTABILITY IN THE COST OF GOLD, ALL PRICES FOR SOCKETS HAVING GOLD PLATED TERMINALS WILL VARY. CHECK US FOR THE LATEST QUOTATIONS.

MODEL 2R2-1 110-125 VOLT POLARIZED SOCKET

Rated at 15 amps, 110 V, or 10 amps, 110-125 V. Accepts any standard 2-prong electric plugs. Mounts in 25/64" × 25/32" hole. Ideal for radio and TV chassis. UL Listed. Polarized.

Cinch Model 2R2-1—Net Each, Lots of
1-24.. $1.06; 25-49.. $0.85
50-99.. $0.71; 100-249.. $0.58



LOW PROFILE WIRE WRAP®

DIP SOCKETS

Provides higher board packing density. Accept standard 14 or 16 contacts size IC packages with flat or rolled leads. Contact resistance, 0.006 ohm max. Contacts of solid .025" brass alloy. Wire Wrap, .687" lg., enough for 3 wraps. Glass Nylon insulator is 15% glass-filled polyester, UL-94 V-O.

®Reg. Gardner-Denver TM.

Cinch No.	No. of Contacts	★Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
14-W-DIP*	14‡	$1.52	$1.25	$1.05	$0.84	$0.81
14-W-DIP-1†	14‡	1.52	1.25	1.05	.84	.81
14-W-DIP-2*	14§	2.173	1.773	1.523	1.263	1.223
14-W-DIP-3†	14§	2.173	1.773	1.523	1.263	1.223
16-W-DIP*	16‡	1.86	1.49	1.26	1.02	.95
16-W-DIP-1†	16‡	1.86	1.49	1.26	1.02	.95
16-W-DIP-2*	16§	2.515	2.095	1.795	1.495	1.425
16-W-DIP-3†	16§	2.515	2.095	1.795	1.495	1.425

Insulator: *Black; †white. Contacts: ‡Electro-tin-plated; §gold plated.

DUAL-INLINE SOCKETS

Accepts standard 14, 16 or 24 dual-inline pkg., flat or round leads. Used with PC boards designed for direct insertion of DIP. Insulator of GP black phenolic with electrotin beryllium copper plated contacts, withstands temp. from −65° C to +150° C.

Cinch No.	No. of Contacts	★Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
14-DIP	14	$1.50	$1.20	$1.01	$0.81	$0.76
14-N-DIP†	14	1.50	1.20	1.01	.81	.76
14-DIP-1*	14	2.147	1.697	1.437	1.177	1.117
14-N-DIP-1*†	14	2.147	1.697	1.437	1.177	1.117
16-DIP	16	1.67	1.34	1.12	.90	.85
16-N-DIP†	16	1.67	1.34	1.12	.90	.85
16-DIP-1*	16	2.29	1.86	1.57	1.29	1.23
16-N-DIP-1*†	16	2.29	1.86	1.57	1.29	1.23
24-DIP	24	2.49	2.01	1.68	1.36	1.29
24-N-DIP†	24	2.49	2.01	1.68	1.36	1.32
24-DIP-1*	24	3.152	2.562	2.192	1.812	1.732
24-N-DIP-1*†	24	3.152	2.562	2.192	1.812	1.732

*Insulator of diallyl phthalate with gold plated contacts. †With narrow (square) leads to fit small-hole PC boards.

LOW PROFILE PRINTED CIRCUIT DIP SOCKETS

Economical DIP sockets for printed circuit board applications. **Insulator:** Valox #420, UL-94 V-O. **Contact Style:** Single beam, face grip. **Contact Material:** 1, Brass alloy 688 with .0001" electroplated solder (60/40) over .0005" copper; 2, CDA-521 phosphor bronze grade "C" with .00003" gold over .0005" nickel. **Terminals:** .012" × .025" × .125" PC solder tails. **Current Rating:** 1 amp. **Lead Centers:** .100"

Cinch No.	Contacts	Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
8E-DIP	8	$0.35	$0.28	$0.24	$0.19	$0.18
8E-DIP-4*	8	.496	.406	.346	.286	.276
14E-DIP	14	.44	.36	.30	.25	.22
14E-DIP-4*	14	.713	.593	.503	.423	.393
16E-DIP	16	.47	.38	.31	.26	.25
16E-DIP-4*	16	.782	.652	.552	.452	.442
18E-DIP	18	.48	.39	.33	.28	.27
18E-DIP-4*	18	.951	.781	.661	.551	.521
22E-DIP	22	.62	.50	.43	.40	.35
22E-DIP-4*	22	1.064	.874	.744	.624	.594
24E-DIP	24	.65	.53	.44	.36	.33
24E-DIP-4*	24	1.153	.943	.813	.663	.643
40E-DIP	40	.94	.75	.63	.51	.48
40E-DIP-4*	40	1.775	1.465	1.255	1.055	1.005

*Gold inlay contacts; all others electroplated solder.

POWER TRANSISTOR SOCKETS

LAMINATED TYPE

A

B

Cinch No. 2TS-1 (Fig. A)—Top and bottom plates are NEMA grade XP phenolic, 94V-O. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. Has .104/.110" dia. hole in CR steel plate. Provides easy attachment to a heat sink.

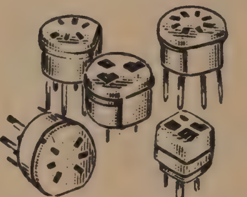
Net Each, Lots of 1-24..............................**$0.27**; 25-49..............................**$0.22**
50-99................**$0.20**; 100-249................ **.18**; 250-Up.......................... **.17**

MODEL 2TS-3 MOLDED TYPE (FIG. B)

Molded power transistor socket. Casting is molded of general purpose phenolic. Contacts are phosphor bronze, cadmium plated. Mounting holes are .098" dia.; contact centers are .425/.435".

Net Each, Lots of 1-24..............................**$0.27**; 25-49..............................**$0.22**
50-99................**$0.20**; 100-249................ **.18**; 250-Up.......................... **.17**

TO-5 AND TO-18 CASE SOCKETS



Rated at 1.0 ampere and 750 VAC (1020 VAC for SDG material). Insulation resistance is 1000 megohms minimum (50,000 megohms for SDG). Contact resistance, 0.05 ohm maximum. All units have dip solder terminations for PC board insertion. TO-18 case, 3-MSS-2, 4-MSS-2; all others TO-5 case.

Cinch No.	Ins. Mat.	Contacts	★Net Each, Lots of 1-24	25-49	50-99	100-249	250 Up
3-MSS*	MFE	3	$0.41	$0.33	$0.28	$0.22	$0.21
4-MSS*	MFE	4	.84	.68	.57	.46	.43
6-MSS†	MFE	6	1.16	.93	.77	.62	.60
6-MSS-1	FEP	6	2.40	1.93	1.61	1.29	1.23
8-MSS†	MFE	8	1.39	1.12	.93	.74	.71
6-ICS†	SDG	6	1.291	1.071	.951	.831	.761
8-ICS†	SDG	8	1.588	1.298	1.118	.948	.928
10-ICS†	SDG	10	1.751	1.411	1.251	1.051	1.001
3-MSS-2*	MFE	3	.59	.48	.39	.32	.30
4-MSS-2*	MFE	4	.80	.64	.53	.43	.41

Contact material and plating: *phosphor bronze—tin over copper; †beryllium copper—gold over copper.

MOLDED CONNECTOR PLUGS AND SOCKETS

A

B

C

MODEL 8PB 8 CONTACT PLUG (FIG. A)

Molded from high dielectric black phenolic. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on $^1/_{16}$" chassis using No. 8RO retaining ring. Will fit any standard octal socket.

Cinch No. 8PB—Net Ea., Lots of 1-24................**$0.90**; 25-49................**$0.75**
50-99....................... **.65**; 100-249....................... **.59**; 250-Up............ **.57**

MODEL 11PB 11 CONTACT PLUG (FIG. B)

Molded from high dielectric black phenolic. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on $^1/_{16}$" chassis using No. 8RO retaining ring. Will fit No. 11RB socket.

Cinch No. 11PB—Net Ea., Lots of 1-24..............**$1.16**; 25-49................**$0.83**
50-99....................... **.75**; 100-249....................... **.65**; 250-Up............ **.61**

MOLDEL 11RB 11 CONTACT SOCKET (FIG. C)

Molded from high dielectric black phenolic. Solder coated brass contacts. Mounts on $^1/_{16}$" chassis using No. 8RO retaining ring. Mates with No. 11PB plug.

Cinch No. 11PB—Net Ea., Lots of 1-24..............**$1.07**; 25-49................**$0.85**
50-99....................... , **.72**; 100-249....................... **.63**; 250-Up............ **.61**

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MODULAR TERMINAL BLOCKS

TERMINAL BLOCKS

Terminal insulation is polyamid 6.6 for maximum creep resistance and mechanical strength. Rated for 300 or 600 V. Meet the creepage and air gap distances as specified by CSA and UL. **Temperature Range:** 100° C continuous, 170° C short term. Connectors are nickel-plated brass. Solder dipping or sleeving of wire ends are not necessary.

WITH PRESSURE CONNECTORS

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 B/5	54.003.6053	#12	25	600	5	32	46	$ 73.87
9700 B/6	54.004.6053	#10	40	600	6	32	46	61.74
9700 B/8 US	54.010.6553	#8	55	600	8	38	55.5	95.92
9700 B/10 US	54.016.6553	#6	80	600	10	43	59	143.33
9700 B/12 US	54.025.6553	#4	105	600	12	53	66	219.40
9700 B/16	54.035.6053	#2	140	600	16	53	66	242.55

TWO-TIER TYPE WITH PRESSURE CONNECTORS

Two separate connectors in one block. To maintain necessary creepage distance and air space between the terminals, and other terminals, an end plate should be used on both sides.

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 B/6 E	54.004.7053*	#14	10	300	6	49	62.5	$140.02
9700 B/6 EA	54.004.7153†	#14	10	300	6	49	62.5	157.66

*For use when only cross connections between upper tiers is required. †Special block for use when interconnection between upper and lower tiers is required; lower tiers cannot be cross connected.

WITH SOLDER LUGS

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 B/6 F1	54.004.6553*	#14	10	300	6	32	46	$80.48
9700 B/6 F2	54.004.6653†	#14	10	300	6	32	46	80.48
9700 B/6 DF1	54.004.6753‡	#14	10	300	6	32	46	66.15
9700 B/6 DF2	54.004.6853§	#14	10	300	6	32	46	66.15

*Solder lug high on left to pressure connector on right. †Solder lug low on left to pressure connector on right. ‡Solder lug low on left to solder lug high on right. §Solder lug high on left to solder lug low on right.

WITH DISCONNECT SWITCH

A circuit may be disconnected by raising the disconnect plug. Supplied with pressure type screws which allow the use of test plugs.

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 B/6 E	54.004.7053	#14	10	300	6	38	46	$140.02

WITH QUICK-DISCONNECT TERMINALS

If cross connections are required, backplate of block has to be punched out with special pliers. Order No. 95.160.0004; price on request. Type 54.004.2653 has provision for 3 conductors; No. 54.004.2353 has provision for 4 conductors.

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 A/6 4S	54.004.2653	...	...	...	..	55.5	52	$55.13
9700 A/6 3S	54.004.2353	...	...	...	..	55.5	52	52.92

GROUND TERMINAL

Electrovert Type Number	Electrovert Catalog Number	Max. Wire Size	Max. Amps	Max. Volts	Size, mm. W.	D.	H.	Net per 100
9700 12/E	Z2.303.5421	#4	...	...	..	....	..	$261.29

END PLATES

Push fit end plates are required to blank off the last terminal block in an assembly as otherwise the live parts would be exposed. Also required if a small block is used next to a large block. Made of polyamid 6.6.

Electrovert		Used with Block, mm	Thkness, mm	Net per 100
Type Number	Catalog Number			
9701/6	07.310.3153	5, 6	1.5	$16.54
9701/8	07.310.3253	8	2.0	23.15
9701/10	07.310.3953	10	2.0	25.36
9701/12	07.310.3353	12	2.0	29.77
9701 B/6 E	07.310.5653	6*	1.5	24.26
9701 A/6 4S	07.310.5153	6†	1.5	29.77
9701 A/6 3S	07.310.5453	6†	1.5	27.56
9701/6 TKS	07.310.4253	6‡	1.5	34.18

*Two-tier type only. †With Quick-Connect terminals. ‡With disconnect switch.

CROSS CONNECTORS

To achieve good electrical conductivity, cross connectors are made of electrolytic copper. Screws are supplied. No bushings or sleeves required for mounting.

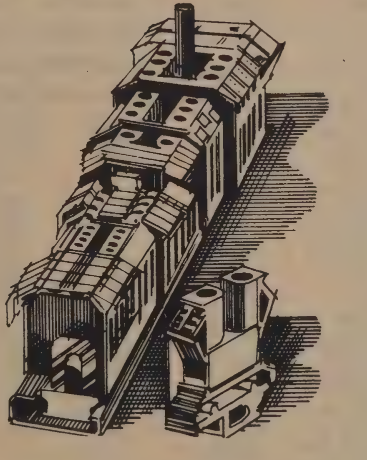
Electrovert		Used with Block mm.	No. of Poles	Net per 100
Type Number	Catalog Number			
9703/5 M	Z7.215.0027	5	*	$ 512.16
9703/5-2	Z7.215.0227	5	2	12.13
9703/5-3	Z7.215.0327	5	3	16.54
9703/5-4	Z7.215.0427	5	4	20.95
9703/5-5	Z7.215.0527	5	5	25.36
9703/5-6	Z7.215.0627	5	6	29.77
9703/6 M	Z7.211.0027	6	*	464.15
9703/6-2	Z7.211.0227	6	2	12.13
9703/6-3	Z7.211.0327	6	3	16.54
9703/6-4	Z7.211.0427	6	4	20.95
9703/6-5	Z7.211.0527	6	5	25.36
9703/6-6	Z7.211.0627	6	6	29.77
9703/8 M	Z7.212.0027	8	*	550.15
9703/8-2	Z7.212.0227	8	2	19.85
9703/8-3	Z7.212.0327	8	3	26.46
9703/8-4	Z7.212.0427	8	4	34.18
9703/8-5	Z7.212.0527	8	5	41.90
9703/8-6	Z7.212.0627	8	6	48.51
9703/10 M	Z7.214.0027	10	*	708.91
9703/10-2	Z7.214.0227	10	2	28.67
9703/10-3	Z7.214.0327	10	3	40.79
9703/10-4	Z7.214.0427	10	4	51.82
9703/10-5	Z7.214.0527	10	5	63.95
9703/10-6	Z7.214.0627	10	6	76.07
9703/12 M	Z7.213.0027	12	*	1137.78
9703/12-2	Z7.213.0227	12	2	52.92
9703/12-3	Z7.213.0327	12	3	74.97
9703/12-4	Z7.213.0427	12	4	98.12
9703/12-5	Z7.213.0527	12	5	120.17
9703/12-6	Z7.213.0627	12	6	142.22

*One piece 0.6 meters (approx. 24″) long.

PARTITION PLATES

Required to increase the clearance between terminals or to provide greater visual indication of the functions of terminal blocks in an assembly bank.

Electrovert		Used with Block, mm	Size, mm Th.	D.	H.	Net per 100
Type No.	Catalog Number					
9702/6	07.310.3453	5, 6	1.5	40	50	$24.26
9702/8	07.310.3553	8	2.0	46	59.5	29.77
9702/10	07.310.4053	10	2.0	51	63	34.18
9702/12	07.310.3653	12	2.0	61	70	36.38



TEST PLUGS

Insulated test plugs are available in black or red. A socket type bolt must be ordered separately. The socket bolt screws into the block so that the test plug can then be inserted into the bolt.

Electrovert		Used with Block	Net per 100
Type Number	Catalog Number		
ST 2/2,3	Z5.553.2921	5, 6 mm.	$155.45
ST 2/4	Z5.553.3021	8, 10, 12, 16 mm.	177.50

SOCKET BOLT FOR TEST PLUGS

Electrovert Type Number	Catalog Number	Used with Block	Net per 100
9011 D	05.508.8921	5 mm.	$ 6.62
9011 C	05.508.8821	6 mm.	6.62
9011 B	05.508.3221	8 mm.	7.72
9011A	05.508.3121	10 mm.	11.03
....	05.508.6521	12, 16 mm.	12.13

UPPER AND LOWER TIER INTERCONNECTORS

Intended for use with the special two-tier terminal block No. 54.004.7153.

Electrovert		Used with Block mm.	No. of Poles	Net per 100
Type Number	Catalog Number			
....	Z5.593.6121	6	1	$ 23.15
....	Z7.211.1227	6	2	49.61
....	Z7.211.1327	6	3	69.46
....	Z7.211.1427	6	4	90.41
....	Z7.211.1527	6	5	111.35
....	Z7.211.1627	6	6	131.20

SWITCH CROSS LINKS

Nickel-plated brass links are supplied with two screws. Two stud bolts must be ordered separately. Stud bolts mount in center receptacle of block and cross link is then screwed to the stud bolts. Add a partition plate on either side of block when cross links are used.

Electrovert		Used with Block, mm	Net per 100
Type Number	Catalog Number		
9012/2.5UB	Z7.269.0623	6	$12.13
9012/6	Z7.269.0523	8	12.13
9012	Z7.269.0723	10	12.13
9034	Z7.269.0825	12	12.13

STUD BOLTS FOR CROSS LINKS

Type Number	Catalog Number	Used with Block, mm	Net per 100
....	05.508.8621	6	$14.33
....	05.508.8721	8	18.74
....	05.508.9721	10	22.05
....	05.508.9821	12	37.49

END CLAMPS

Required to prevent terminal blocks being pushed along mounting rail. They are mounted at each end of an assembly bank.

Electrovert		Description	Net per 100
Type No.	Catalog Number		
9008	Z5.522.2423	Steel, 10 mm wide	$20.95
9008U	Z5.522.1321	Brass, 5 mm wide	38.59
9708	Z5.522.7053	Plastic, 7.5 mm wide	24.26

MOUNTING RAILS

Standard length is 2 meters (approximately 6½ feet).

Electrovert Type 9006, Catalog No. 98.190.0000 Steel Mounting Rail—
Net per 100................**$661.50**

Electrovert Type 9006AL, Catalog No. 98.210.0000 Aluminum Mounting Rail—
Net per 100...............**$1616.27**

Electrovert Type 9018H, Catalog No. Z5.516.2711 Mounting Rail Bracket—
Net per 100 ....**$102.53**

ELECTROVERT PROVIDES MANY DIFFERENT MARKERS AND MARKER STRIPS FOR THESE TERMINALS, AND LACK OF SPACE PROHIBITS LISTING THEM HERE. CONSULT THE FACTORY OR YOUR DISTRIBUTOR FOR AVAILABILITY AND PRICING.

ELECTROVERT, INC.
Industrial Electrical & Electronic Products

MODULAR TERMINAL BLOCKS

TEST TERMINALS

Test terminals allow the circuit to be opened or closed by means of a sliding link. The position of the link is visible at all times. Available in two sizes: 10 mm width rated at 600 V, 80 amps, #8 AWG wires; 8 mm width rated at 600 V, #10 AWG wires. Melamine terminals mount on steel or aluminum rails listed with accessories below.

Electrovert Type Number	Electrovert Catalog Number	Description	Net per 100
9060 APTKKAKR†	**59.916.0340**	Terminal block, 10 mm	**$366.03**
9060APTKPKAKR†	**59.916.0440***	Terminal block, 10 mm	**402.41**
9860 PTKKR	**52.210.0040**	Terminal block, 8 mm	**543.53**
9061 APDAKAKR	**07.310.1840**	End plate, 10 mm	**66.15**
9061 APKR	**07.310.1740**	End plate, 8 mm	**58.43**
9864/ 2L	**07.210.8227**	Cross connector, 8 mm, 2 poles left	**20.95**
9864/ 3L	**07.210.8327**	Cross connector, 8 mm, 3 poles left	**25.36**
9864/ 4L	**07.210.8427**	Cross connector, 8 mm, 4 poles left	**30.87**
9864/ 2R	**07.210.9027**	Cross connector, 8 mm, 2 poles right	**20.95**
9864/ 3R	**07.210.9127**	Cross connector, 8 mm, 3 poles right	**25.36**
9864/ 4R	**07.210.9227**	Cross connector, 8 mm, 4 poles right	**30.87**
ST 2/4	**Z5.553.3021**	Test plug	**177.50**
9011 B	**05.508.3221**	Socket bolt for test plug	**7.72**

*With test socket bolt installed. †VDE and CSA recognized.

TERMINALS FOR EXTRA LARGE WIRES

Terminals accept wires from #3 AWG to 500 MCM. Pressure stirrups are of a sturdy and strong design with self-locking bolt system. Available in three types: F, FK and K. Type F is available in three sizes: 260 amps/600 V for #3 AWG wires; 435 amps/600 V for 400 MCM wires; 500 amps/600 V for 500 MCM wires. Types FK and K are available in two sizes: 260 amps/600 V for #3 AWG wires; 500 amps/600 V for 500 MCM wires. Melamine terminals mount on steel or aluminum rails listed with accessories below and may be locked in place with one M5 screw. Cross connectors cannot be used with Type K terminals.

Electrovert Type Number	Electrovert Catalog Number	Description	Net per 100
RFK1/95FKR	**59.195.0040**	Terminal, Type F, 260 amps	**$ 522.59**
RFK1/185FKR	**59.198.0040**	Terminal, Type F, 435 amps	**872.08**
RFK1/240FKR	**59.199.0040**	Terminal, Type F, 500 amps	**1154.32**
RFK1/95FKKR	**59.195.0240**	Terminal, Type FK, 260 amps	**671.42**
RFK1/240FKKR	**59.199.0240**	Terminal, Type FK, 500 amps	**1838.97**
RFK1/95KKR	**59.195.0140**	Terminal, Type K, 260 amps	**799.31**
RFK1/240KKR	**59.199.0140**	Terminal, Type K, 500 amps	**2544.57**
T/RFK1/95	**07.340.0287**	Partition plate, 260 amp size	**81.59**
T/RFK1/150-240	**07.340.0987**	Partition plate, 435 & 500 amp size	**91.51**
TE/RFK1/95	**07.340.0387**	End plate, 260 amp size	**89.30**
TE/RFK1/150-240	**07.340.1087**	End plate, 435 & 500 amp size	**100.33**
AM5x12DIN933	**06.065.0021**	M5 locking screw	**15.44**
VB RFK1/95/2/32	**07.205.1227**	Cross connector, 2 poles, 260 amp size	**119.07**
VB RFK1/95/3/32	**07.205.1327**	Cross connector, 3 poles, 260 amp size	**190.73**
VB RFK1/95/4/32	**07.205.1427**	Cross connector, 4 poles, 260 amp size	**262.40**
VB RFK1/185/2	**07.201.4227**	Cross connector, 2 poles, 435 amp size	**192.94**
VB RFK1/185/3	**07.201.4327**	Cross connector, 3 poles, 435 amp size	**300.98**
VB RFK1/185/4	**07.201.4427**	Cross connector, 4 poles, 435 amp size	**410.13**
VB RFK1/240/2	**07.201.8227**	Cross connector, 2 poles, 500 amp size	**295.47**
VB RFK1/240/3	**07.201.8327**	Cross connector, 3 poles, 500 amp size	**409.03**
VB RFK1/240/4	**07.201.8427**	Cross connector, 4 poles, 500 amp size	**534.71**

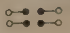
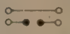
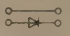
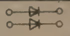
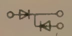
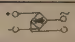
FUSED TERMINALS

Modular terminals accept various ¼″ x 1¼″ glass fuses and are available with open-fuse indicators in 14–28 V incandescent or 100–500 V neon lamps. Terminals are rated 300 V, 15 amps, will accept up to #14 wire and are 12 mm wide. Melamine blocks mount on steel or aluminum rails listed with accessories.

Electrovert Type Number	Electrovert Catalog Number	Description	Net per 100
WK10/SI32 6.3x32	**54.910.5353**	Terminal block	**$356.11**
WK10/SI32 6.3x32glb	**54.910.6153**	Block with 28 V lamp	**552.35**
WK10/SI32 6.3x32ngl	**54.910.5753**	Block with 100 V lamp	**564.48**

TERMINAL BLOCKS FOR ELECTRICAL COMPONENTS

Each terminal block has four external pressure connectors and will serve two circuits. Wiring diagrams are printed on the top of the blocks. Diodes used in some of the blocks are the 1N4007 rated at 1 amp, 1300 V peak reverse voltage, and junction temp. rating of 175° C. Other types available. Blocks rated at 600 V, #12 AWG wire and current determined by internal components.

Electrovert Type Number	Electrovert Catalog Number	Diagram	Description	Net per 100
9786 B/12	**54.904.2053**		4 pressure conns. & 4 solder conns. inside	**$454.23**
9786 B/12 D	**54.904.2153**		2 pressure conns. for thru conn. & 2 pressure conns. w/2 solder conns. inside.	**421.16**
9786 B/12 D-G1	**54.904.2253**		2 pressure conns. for thru conn. & built-in diode	**642.76**
9786 B/12 G2-4K	**54.904.2353**		2 built-in diodes	**808.13**
9786 B/12 G2-3K	**54.904.2453**		3 pressure conns. & 2 built-in diodes	**721.04**
9786 B/12 G4	**54.904.2553**		Built-in full-wave bridge rectifier	★

★Prices on request.

MICRO MODULAR TERMINALS

Smaller terminal blocks with polyamid insulation except No. 52.504.0052, polypropylene. Available with pressure clamp or solder lugs. Rated 300 V.

Electrovert Type Number	Electrovert Catalog Number	Description	Net per 100
9200KA6.6	**50.003.0053▲**	Pressure clamps, 25 amps, #12 AWG	**$ 67.25**
9220KA6.6	**52.504.0053▲**	Pressure clamps, 40 amps, #10 AWG	**55.13**
9220KA6.6F1	**52.504.1553*▲**	Solder lug and clamp, 8 amps, #16 AWG	**87.10**
9220KA6.6F2	**52.504.2053†▲**	Solder lug and clamp, 8 amps, #16 AWG	**87.10**
9220KA6.6DF1	**52.504.0553‡▲**	Solder lugs, 8 amps, #16 AWG	**56.23**
9220KA6.6DF2	**52.504.1053#▲**	Solder lugs, 8 amps, #16 AWG	**56.23**
9221KA6.6	**07.300.4053▲**	End plate	**17.64**
9217M	**Z7.210.4027§▲**	Cross connector, 0.6 meter	**486.20**
9215M	**Z7.210.3027•▲**	Cross connector, 0.6 meter	**432.18**
....	**Z7.269.2823§▲**	Switch cross link	**12.13**
9012/2.5UB	**Z7.269.0623•▲**	Switch cross link	**12.13**
....	**05.508.8621▲**	Stud bolt for cross link	**14.33**
ST 2/2.3	**Z5.553.2921▲**	Test plug	**155.45**
9011D	**05.508.8921§▲**	Socket bolt for test plug	**6.62**
9011C	**05.508.8821•▲**	Socket bolt for test plug	**6.62**
9021	**98.090.0015**	Steel mounting rail, 2 meters	**441.00**
9022	**Z5.522.2110**	End clamp, 7.5 mm wide	**17.64**
9222	**Z5.522.5010**	End clamp, 5 mm wide	**14.33**
9022E	**Z5.522.3510**	Ground terminal	**86.00**

*Lug is high on right side. †Lug is low on right side. ‡Lugs high on left side, low on right. #Lugs low on left side, high on right. §For 50.003.0053 only. •For all other terminal blocks. ▲VDE, CSA and UL recognized.

ACCESSORIES

9006	**98.190.0000**	Steel mounting rail, 2 meters long	**$ 661.50**
9006 AL	**98.210.0000**	Aluminum mounting rail, 2 meters long	**1616.27**
9008 U	**Z5.522.1321**	Brass end clamp	**38.59**
9708	**Z5.522.7053**	Plastic end clamp	**24.26**
9008	**Z5.522.2423**	Steel end clamp	**20.95**
9700/12E	**Z2.303.5421**	Ground terminal	**261.29**

MICRO MODULAR DISCONNECT TERMINALS

This terminal allows the disconnection of a power circuit by raising the disconnect plug. Supplied with socket type pressure screws which allow the use of test plugs. Rated 300 V, 10 amps. #14 AWG wire, 6 mm wide. Made of polyamid.

9220A/6TKSP3*	**55.004.3353**	Terminal block	**$154.35**
9701/6 TKS	**07.310.4253**	End plate	**34.18**

*i.e., VDE, CSA and UL recognized.

TYPE 8140 SS PLUG-IN P.C. TERMINAL STRIPS

Type 8140 SS terminal strips provide for quick connect and disconnect of wiring to P.C. boards. Wires are connected to the terminal strip by means of screw connectors and the strips plug onto pin strips soldered into the P.C. board. Appropriate pin strips are available on request. **Insulator:** Lexan 940N. **Screw Connector:** Brass, nickel plated. **Contact Bushing:** Tin bronze, silver plated. **Clamping Screw:** Steel, zinc plated and chromate treated. Rated 250 V, 10 Amps, 16 AWG (for field/factory wiring) and 250 V, 10 Amps, 14 AWG (for factory wiring).

Electrovert Type Number	Electrovert Catalog Number	Poles	Overall Length, mm	Net per 100
5 mm SPACING				
8140/2 SS	25.600.0253	2	10	$ 55.13
8140/3 SS	25.600.0353	3	15	77.18
8140/4 SS	25.600.0453	4	20	95.92
8140/5 SS	25.600.0553	5	25	117.97
8140/6 SS	25.600.0653	6	30	140.02
8140/7 SS	25.600.0753	7	35	162.07
8140/8 SS	25.600.0853	8	40	184.12
8140/9 SS	25.600.0953	9	45	201.76
8140/10 SS	25.600.1053	10	50	220.50
8140/11 SS	25.600.1153	11	55	242.55
8140/12 SS	25.600.1253	12	60	264.60
8140/13 SS	25.600.1353	13	65	286.65
8140/14 SS	25.600.1453	14	70	308.70
8140/15 SS	25.600.1553	15	75	338.47
8140/16 SS	25.600.1653	16	80	352.80
8140/17 SS	25.600.1753	17	85	418.95
8140/18 SS	25.600.1853	18	90	389.94
8140/19 SS	25.600.1953	19	95	410.94
8140/20 SS	25.600.2053	20	100	389.94
10 mm SPACING				
8140/2 SS	25.601.0253	2	20	$ 62.84
8140/3 SS	25.601.0353	3	30	84.89
8140/4 SS	25.601.0453	4	40	106.94
8140/5 SS	25.601.0553	5	50	128.99
8140/6 SS	25.601.0653	6	60	151.04
8140/7 SS	25.601.0753	7	70	173.09
8140/8 SS	25.601.0853	8	80	195.14
8140/9 SS	25.601.0953	9	90	173.09

TYPE 8145 P.C. TERMINAL STRIPS

Terminal strips of polyamid 6.6 have 45° angled wire entry and screwdriver angle. Solder pins are 0.8 by 0.9 mm and of electrolytic copper, zinc plated. Wire connectors are nickel-plated brass, and screws are zinc-plated steel. Strips are supplied with terminal number marking; if marking is not desired, please specify when ordering. Special markings are available on request. Rated 300 V, 15 amps, #14 AWG wire.

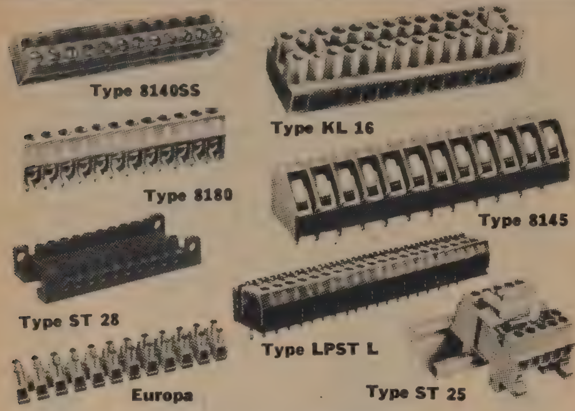
Electrovert Type Number	Electrovert Catalog Number	No. of Poles	Package Quantity	Overall Length, mm	Net per 100
5 mm SPACING					
8145/2	25.135.0253	2	500	10	$ 66.15
8145/3	25.135.0353	3	250	15	86.00
8145/4	25.135.0453	4	200	20	106.94
8145/5	25.135.0553	5	200	25	130.10
8145/6	25.135.0653	6	200	30	153.25
8145/7	25.135.0753	7	200	35	176.40
8145/8	25.135.0853	8	200	40	202.86
8145/9	25.135.0953	9	200	45	226.01
8145/10	25.135.1053	10	100	50	249.17
8145/11	25.135.1153	11	100	55	272.32
8145/12	25.135.1253	12	100	60	296.57
8145/13	25.135.1353	13	100	65	320.83
8145/14	25.135.1453	14	50	70	343.98
8145/15	25.135.1553	15	50	75	370.44
8145/16	25.135.1653	16	50	80	393.59
8145/17	25.135.1753	17	50	85	418.95
8145/18	25.135.1853	18	50	90	443.21
8145/19	25.135.1953	19	50	95	466.36
8145/20	25.135.2053	20	50	100	490.61
8145/21	25.135.2153	21	50	105	518.18
8145/22	25.135.2253	22	50	110	540.23
8145/23	25.135.2353	23	50	115	564.48
8145/24	25.135.2453	24	50	120	581.02
10 mm SPACING					
8145/2	25.137.0253	2	200	20	$ 71.66
8145/3	25.137.0353	3	200	30	92.61
8145/4	25.137.0453	4	200	40	119.07
8145/5	25.137.0553	5	100	50	145.53
8145/6	25.137.0653	6	100	60	171.99
8145/7	25.137.0753	7	100	70	197.35
8145/8	25.137.0853	8	50	80	224.91
8145/9	25.137.0953	9	50	90	251.37
8145/10	25.137.1053	10	50	100	278.93
8145/11	25.137.1153	11	50	110	303.19
8145/12	25.137.1253	12	50	120	330.75

FOR ILLUSTRATIONS, SEE FOLLOWING PAGE

TERMINAL STRIPS FOR PRINTED CIRCUITS

Terminal strips of polyamid 6 are made for use with automatic screwdrivers. Solder pins are 0.75 mm square and are of electrolytic copper, hot tin dipped. Connectors are hot tin dipped brass and screws are zinc-plated steel. Wire guards are nickel-plated phosphor bronze. Terminals are delivered with terminal number marking; if marking is not desired, please specify when ordering. Special markings are available on special request. Rated 300 V, 15 amps, #14 AWG wire.

Electrovert Type Number	Electrovert Catalog Number	No. of Poles	Overall Length, mm	Net per 100
5 mm SPACING, 14.5 mm HEIGHT				
8180/2	25.100.0253	2	11.3	$ 54.02
8180/3	25.100.0353	3	16.3	67.25
8180/4	25.100.0453	4	21.3	82.69
8180/5	25.100.0553	5	26.3	97.02
8180/6	25.100.0653	6	31.3	111.83
8180/7	25.100.0753	7	36.3	126.79
8180/8	25.100.0853	8	42	127.89
8180/9	25.100.0953	9	46.3	145.53
8180/10	25.100.1053	10	51.3	163.17
8180/11	25.100.1153	11	56.3	179.71
8180/12	25.100.1253	12	62	179.71
8180/13	25.100.1353	13	66.3	200.66
8180/14	25.100.1453	14	71.3	231.53
8180/15	25.100.1553	15	76.3	242.55
8180/16	25.100.1653	16	82	243.65
8180/17	25.100.1753	17	86.3	261.29
8180/18	25.100.1853	18	91.3	278.93
8180/19	25.100.1953	19	96.3	293.27
8180/20	25.100.2053	20	102	294.37
8180/21	25.100.2153	21	106.3	312.01
8180/22	25.100.2253	22	111.3	337.37
8180/23	25.100.2353	23	116.3	363.83
8180/24	25.100.2453	24	122	346.19
10 mm SPACING, 14.5 mm HEIGHT				
8180/2	25.101.0253	2	21.3	$ 58.43
8180/3	25.101.0353	3	31.3	74.97
8180/4	25.101.0453	4	42	87.10
8180/5	25.101.0553	5	51.3	112.46
8180/6	25.101.0653	6	62	116.87
8180/7	25.101.0753	7	71.3	136.71
8180/8	25.101.0853	8	82	145.53
8180/9	25.101.0953	9	91.3	163.17
8180/10	25.101.1053	10	102	171.99
8180/11	25.101.1153	11	111.3	189.63
8180/12	25.101.1253	12	122	190.73
5 mm SPACING, 11.5 mm HEIGHT				
8181/2	25.102.0253	2	9.8	$ 54.02
8181/3	25.102.0353	3	14.8	67.25
8181/4	25.102.0453	4	19.8	82.69
8181/5	25.102.0553	5	24.8	97.02
8181/6	25.102.0653	6	29.8	111.35
8181/7	25.102.0753	7	34.8	126.79
8181/8	25.102.0853	8	39.8	127.89
8181/9	25.102.0953	9	44.8	145.53
8181/10	25.102.1053	10	49.8	163.17
8181/11	25.102.1153	11	54.8	179.71
8181/12	25.102.1253	12	59.8	179.71
8181/13	25.102.1353	13	64.8	200.66
8181/14	25.102.1453	14	69.8	221.60
8181/15	25.102.1553	15	74.8	242.55
8181/16	25.102.1653	16	79.8	243.65
8181/17	25.102.1753	17	84.8	261.29
8181/18	25.102.1853	18	89.8	278.93
8181/19	25.102.1953	19	94.8	293.27
8181/20	25.102.2053	20	99.8	294.37
8181/21	25.102.2153	21	104.8	312.01
8181/22	25.102.2253	22	109.8	337.37
8181/23	25.102.2353	23	114.8	363.83
8181/24	25.102.2453	24	119.8	346.19
5.08 mm (0.2″) SPACING, 11.5 mm HEIGHT				
8281/2	25.104.0253	2	10	$ 56.23
8281/3	25.104.0353	3	15	70.56
8281/4	25.104.0454	4	20.1	86.00
8281/5	25.104.0553	5	25.2	103.64
8281/6	25.104.0653	6	30.2	119.07
8281/7	25.104.0753	7	35.3	136.71
8281/8	25.104.0853	8	40.4	152.15
8281/9	25.104.0953	9	45.5	169.79
8281/10	25.104.1053	10	50.5	187.43
8281/11	25.104.1153	11	55.6	203.96
8281/12	25.104.1253	12	60.7	221.60
8281/13	25.104.1353	13	65.8	239.24
8281/14	25.104.1453	14	70.9	255.78
8281/15	25.104.1553	15	76	273.42
8281/16	25.104.1653	16	81	291.06
8281/17	25.104.1753	17	86.1	307.60
8281/18	25.104.1853	18	91.2	325.24
8281/19	25.104.1953	19	96.3	342.88
8281/20	25.104.2053	20	101.3	360.52
8281/21	25.104.2153	21	106.4	377.06
8281/22	25.104.2253	22	115.5	393.59
8281/23	25.104.2353	23	116.6	411.23
8281/24	25.104.2453	24	121.7	380.36



EUROPA FLEXIBLE STRIPS TERMINAL

Flexible terminal strips made of polyamid 6 may be cut to any desired shorter length, but shorter lengths are available. Connectors are nickel-plated brass, and wire guards are phosphor bronze. Rated 300 V, with wire size and current as shown in table. Both plain and numbered marker strips are available.

Electrovert Type Number	Electrovert Catalog Number	No. of Poles	Overall Length, mm	Net per 100
10 AMPS, #16 AWG				
6 E/1 DS	21.311.0153	1	5	$ 12.13
6 E/2 DS	21.311.0253	2	17	22.05
6 E/3 DS	21.311.0353	3	27	30.87
6 E/4 DS	21.311.0453	4	37	44.10
6 E/5 DS	21.311.0553	5	47	54.02
6 E/6 DS	21.311.0653	6	57	65.05
6 E/7 DS	21.311.0753	7	67	76.07
6 E/8 DS	21.311.0853	8	77	87.10
6 E/9 DS	21.311.0953	9	87	97.02
6 E/10 DS	21.311.1053	10	97	109.15
6 E/12 DS	21.311.1253	12	117	127.89
For use at 600 V, add spacer No. **07.470.1280**; net per 100, **$45.15.**				
20 AMPS, #14 AWG				
6 E/1 S	22.310.0153	1	7	$ 18.21
6 E/2 S	22.310.0253	2	17	32.91
6 E/3 S	22.310.0353	3	27	47.68
6 E/4 S	22.310.0453	4	37	62.24
6 E/5 S	22.310.0553	5	47	80.65
6 E/6 S	22.310.0653	6	57	91.57
6 E/7 S	22.310.0753	7	67	109.49
6 E/8 S	22.310.0853	8	77	120.91
6 E/9 S	22.310.0953	9	87	135.40
6 E/10 S	22.310.1053	10	97	150.44
6 E/12 S	22.310.1253	12	117	168.16
20 AMPS, #12 AWG				
10 E/1 DS	21.331.5153	1	8	$ 22.05
10 E/2 DS	21.331.5253	2	20	40.79
10 E/3 DS	21.331.5353	3	32	58.43
10 E/4 DS	21.331.5453	4	44	77.18
10 E/5 DS	21.331.5553	5	56	94.82
10 E/6 DS	21.331.5653	6	68	114.66
10 E/7 DS	21.331.5753	7	80	132.30
10 E/8 DS	21.331.5853	8	92	151.04
10 E/9 DS	21.331.5953	9	104	168.68
10 E/10 DS	21.331.6053	10	116	187.43
10 E/12 DS	21.331.6253	12	140	220.50
For use at 600 V, add spacer No. **07.471.1280**; net per 100, **$48.30.**				
40 AMPS, #8 AWG				
16 E/1DS	21.341.5153	1	9.5	$ 40.79
16 E/2DS	21.341.5253	2	23	76.07
16 E/3DS	21.341.5353	3	36.5	111.35
16 E/4DS	21.341.5453	4	50	146.63
16 E/5DS	21.341.5553	5	63.5	181.91
16 E/6DS	21.341.5653	6	77	216.09
16 E/7DS	21.341.5753	7	90.5	253.58
16 E/8DS	21.341.5853	8	104	287.75
16 E/9DS	21.341.5953	9	117.5	323.03
16 E/10DS	21.341.6053	10	131	358.31
16 E/12DS	21.341.6253	12	158	425.57
For use at 600 V, add spacer No. **07.472.1280**; net per 100, **$50.40.**				
55 AMPS, #6 AWG				
20 E/2 DS	21.341.3253	2	19.3	$ 88.20
20 E/3 DS	21.341.3353	3	28.9	131.20
20 E/4 DS	21.341.3453	4	38.5	174.14
20 E/5 DS	21.341.3553	5	48.1	211.68
20 E/6 DS	21.341.3653	6	57.7	250.27
20 E/7 DS	21.341.3753	7	67.3	288.86
20 E/8 DS	21.341.3853	8	76.9	331.85
20 E/9 DS	21.341.3953	9	86.5	370.44
20 E/10 DS	21.341.4053	10	96.2	412.34
20 E/12 DS	21.341.4253	12	115.4	475.18

For use at 600 V, add spacer No. **07.473.1280**; net per 100, **$50.40.**
NOTE: Except for 6E-S Series, all strips are also available without wireguards.

PLUG AND SOCKET CONNECTORS

Connectors are equipped with self-locking pressure screws and phosphor bronze wire guards. Rated 300 V, 15 amps, #14 AWG wires. Pins numbered from 1 thru 5 or 10. Five-pole types are available with or without locking device and can be mounted on steel or aluminum rails listed with accessories below. Ten-pole types have coding pins available from 28 coding schemes for polarizing and can be mounted either on rail or direct. Insulating body is polyamid, and connectors are silver-plated brass.

Electrovert Type Number	Electrovert Catalog Number	Description	No. of Poles	Net per 100
ST 25/5 B†	93.031.2053	Socket	5	$ 261.19
ST 25/5 S†	93.032.2053	Plug	5	232.63
ST 25/5 SV†	93.032.2453	Plug with lock	5	319.73
VB 11/2	07.250.2527	Cross connector	5	22.05
ST 28/10 B	93.001.1053	Socket	10	543.53
ST 28/10 S	93.002.1053	Plug	10	514.87
ST 28/10 BS	93.003.1053	Plug and socket	10	1088.17
....	05.594.5153	Coding pin	....	★

★Prices on request. †VDE only.

COMPACT TERMINAL STRIPS

Compact terminal strips are made of polyamid 6 and are supplied with self-locking screws to prevent loosening. Connectors are nickel-plated brass; wire guards are phosphor bronze. Terminals are supplied with consecutive numbers.

Electrovert Type Number	Electrovert Catalog Number	No. of Poles	Overall Length, mm	Net per 100
KL 16/4 PA DS	29.401.0453	4	33.4	$109.15
KL 16/6 PA DS	29.401.0653	6	44.2	142.22
KL 16/8 PA DS	29.401.0853	8	55	184.12
KL 16/12 PA DS	29.401.1253	12	76.6	256.88
KL 16/16 PA DS	29.401.1653	16	98.2	330.75
KL 16/20 PA DS	29.401.2053	20	119.8	403.52
....	07.250.1627	Cross connector		412.34

PC BOARD EDGE CONNECTORS

Fiberglass reinforced polycarbonate edge connectors available with and without solder lugs. Contact springs are silver plated phosphor bronze and pressure connectors are nickel plated brass. A slot is provided between each two contacts for insertion of a locking piece which, with a corresponding slot in the PC board, insures correct polarization. Available accessories include the locking piece, end clamps for securing the PC board, guide brackets, and a bracing strip for the guide brackets.

Electrovert Type Number	Electrovert Catalog Number	No. of Poles	Board Width, mm	Net per 100
WITH SOLDER LUGS				
LPST L 1/2	25.001.0256	2	10	$ 173.09
LPST L 1/3	25.001.0356	3	15	238.14
LPST L 1/4	25.001.0456	4	20	318.62
LPST L 1/5	25.001.0556	5	25	399.11
LPST L 1/6	25.001.0656	6	30	477.38
LPST L 1/7	25.001.0756	7	35	566.76
LPST L 1/8	25.001.0856	8	40	638.35
LPST L 1/9	25.001.0956	9	45	716.63
LPST L 1/10	25.001.1056	10	50	796.01
LPST L 1/11	25.001.1156	11	55	875.39
LPST L 1/12	25.001.1256	12	60	956.97
LPST L 1/13	25.001.1356	13	65	1034.15
LPST L 1/14	25.001.1456	14	70	1114.63
LPST L 1/15	25.001.1556	15	75	1196.21
LPST L 1/16	25.001.1656	16	80	1273.39
LPST L 1/17	25.001.1756	17	85	1353.87
LPST L 1/18	25.001.1856	18	90	1434.35
LPST L 1/19	25.001.1956	19	95	1513.73
LPST L 1/20	25.001.2056	20	100	1592.01
WITHOUT SOLDER LUGS				
LPST 1/2	25.000.0256	2	10	$ 166.48
LPST 1/3	25.000.0356	3	15	242.55
LPST 1/4	25.000.0456	4	20	308.70
LPST 1/5	25.000.0556	5	25	359.42
LPST 1/6	25.000.0656	6	30	411.23
LPST 1/7	25.000.0756	7	35	469.67
LPST 1/8	25.000.0856	8	40	538.02
LPST 1/9	25.000.0956	9	45	606.38
LPST 1/10	25.000.1056	10	50	671.42
LPST 1/11	25.000.1156	11	55	740.88
LPST 1/12	25.000.1256	12	60	808.13
LPST 1/13	25.000.1356	13	65	874.28
LPST 1/14	25.000.1456	14	70	941.54
LPST 1/15	25.000.1556	15	75	1008.79
LPST 1/16	25.000.1656	16	80	1077.14
LPST 1/17	25.000.1756	17	85	1142.19
LPST 1/18	25.000.1856	18	90	1211.65
LPST 1/19	25.000.1956	19	95	1280.00
LPST 1/20	25.000.2056	20	100	1345.05
....	05.593.7756	Locking piece		5.51
....	05.522.7356	End clamp		12.13
....	05.593.8853	Guide bracket		36.38
....	07.413.3653	Bracing strip		27.56

E-Z-HOOK
Division of Tektest, Inc.

Test Connectors

MICRO-HOOK TEST CONNECTORS

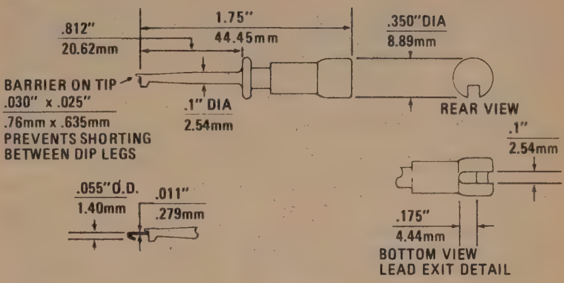
The E-Z-MICRO-HOOK Model XM is designed for difficult IC connections. Light weight and Finger-eze Hypo Action permit direct hook up to delicate wires (up to .025″) where weight and leverage may damage components. Insulated to single contact point to assure true readings. One-piece beryllium copper, gold-plated conductor and hook. Chemical resistant nylon body and plunger. Stainless steel coil spring. Available in black, brown, red, orange, yellow, green, blue, violet, gray or white, plus any of the 1000 color combinations in the Kilo-Color system. Specify color when ordering.

E-Z-Hook No. XM Micro-Hook Connector—Net Each $0.95

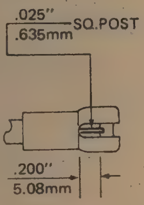
E-Z-Hook No. XM-S—Assortment of 1 each of ten colors. Net Each $9.50

E-Z-Hook No. XM-NM—Same as XM, except has non-magnetic coil spring. Net Each $1.05

E-Z-Hook No. XM-NM-S—Assortment of 1 each of ten colors. Net Each $10.50



MODEL XM25



The XM type Micro-Hook with a .025″ (.635 mm) square post built into the plunger.

E-Z-Hook No. XM25 Micro-Hook Net Each $1.85

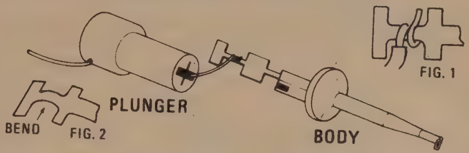
E-Z-Hook No. XM25-S—Assortment of 1 each of ten colors. Net Each $18.50

E-Z-Hook No. XM25-14S—Assortment of 14 connectors. Net Each $25.90

E-Z-Hook No. XM25-16S—Assortment of 16 connectors. Net Each $26.60

FIELD SERVICEABLE

To connect or replace leads, pull straight out on plunger until it slips free of body. Strip lead wire 3/4″, feed wire through plunger and wrap around terminal as shown in Fig. 1. Solder. Cut off excess wire at solder point. Reassemble, making sure terminal and nylon fin enter their respective grooves. Keep slack out of lead wire while assembling. If assembly slides too freely, bend terminal slightly as shown in Fig. 2.



MICRO-HOOK TEST LEADS

Test leads combining the No. XM Micro-Hook with various connectors on the other end. Leads are extra-flexible, insulated thermoplastic No. 22 AWG wire with 65 × 40 tinned stranding.

E-Z-Hook No.	Lead Length	Second Connector	Net Each
AXM	32″	.080″ pin plug	$ 1.75
AXM-S	32″	Ass't of AXM in ten colors	17.50
BXM	32″	Standard banana plug	1.75
BXM-S	32″	Ass't of ten colors	17.50
CXM	32″	Miniature banana plug	2.00
CXM-S	32″	Ass't of ten colors	20.00
216XM	32″	Stacking min. banana plug	2.05
216XM-S	32″	Ass't of ten colors	20.50
201XM	32″	Stacking banana plug	1.85
201XM-S	32″	Ass't of ten colors	18.50
202XM	32″	Stacking .080″ pin plug	2.05
202XM-S	32″	Ass't of ten colors	20.50
203XM-6†	6″	.025″ square insulated socket	1.75
203XM-6-S†	6″	Ass't of ten colors	17.50
203XM-12†	12″	.025″ square insulated socket	1.75
203XM-12-S†	12″	Ass't of ten colors	17.50
203XM-18†	18″	.025″ square insulated socket	1.75
203XM-18-S†	18″	Ass't of ten colors	17.50
203XM-24†	24″	.025″ square insulated socket	1.75
203XM-24-S†	24″	Ass't of ten colors	17.50
203XM-36†	36″	.025″ square insulated socket	1.75
203XM-36-S†	36″	Ass't of ten colors	17.50
203XM-48†	48″	.025″ square insulated socket	1.85
203XM-48-S†	48″	Ass't of ten colors	18.50
203XM-60†	60″	.025″ square insulated socket	1.95
203XM-60-S†	60″	Ass't of ten colors	19.50
230XM-6†	6″	.025″ square pin plug	1.70
230XM-6-S†	6″	Ass't of ten colors	17.00
230XM-12†	12″	.025″ square pin plug	1.70
230XM-12-S†	12″	Ass't of ten colors	17.00
230XM-18†	18″	.025″ square pin plug	1.70
230XM-18-S†	18″	Ass't of ten colors	17.00
230XM-24†	24″	.025″ square pin plug	1.70
230XM-24-S†	24″	Ass't of ten colors	17.00
230XM-36†	36″	.025″ square pin plug	1.70
230XM-36-S†	36″	Ass't of ten colors	$17.00
230XM-48†	48″	.025″ square pin plug	1.80
230XM-48-S†	48″	Ass't of ten colors	18.00
230XM-60†	60″	.025″ square pin plug	1.90
230XM-60-S†	60″	Ass't of ten colors	19.00
204XM-3	3″	Micro-Hook	2.15
204XM-3-S	3″	Ass't of ten colors	21.50
204XM-6	6″	Micro-Hook	2.15
204XM-6-S	6″	Ass't of ten colors	21.50
204XM-12	12″	Micro-Hook	2.15
204XM-12-S	12″	Ass't of ten colors	21.50
204XM-18	18″	Micro-Hook	2.15
204XM-18-S	18″	Ass't of ten colors	21.50
204XM-24	24″	Micro-Hook	2.15
204XM-24-S	24″	Ass't of ten colors	21.50
204XM-36	36″	Micro-Hook	2.15
204XM-36-S	36″	Ass't of ten colors	21.50
204XM-48	48″	Micro-Hook	2.20
204XM-48-S	48″	Ass't of ten colors	22.00
204XM-60	60″	Micro-Hook	2.30
204XM-60-S	60″	Ass't of ten colors	23.00
304XM-3*	3″	Micro-Hook	2.40
304XM-3-S*	3″	Ass't of ten colors	24.00
304XM-6*	6″	Micro-Hook	2.40
304XM-6-S*	6″	Ass't of ten colors	24.00
304XM-12*	12″	Micro-Hook	2.40
304XM-12-S*	12″	Ass't of ten colors	24.00
304XM-18*	18″	Micro-Hook	2.40
304XM-18-S*	18″	Ass't of ten colors	24.00
304XM-24*	24″	Micro-Hook	2.40
304XM-24-S*	24″	Ass't of ten colors	24.00
304XM-36*	36″	Micro-Hook	2.40
304XM-36-S*	36″	Ass't of ten colors	2.40
304XM-48*	48″	Micro-Hook	2.50
304XM-48-S*	48″	Ass't of ten colors	25.00
304XM-60*	60″	Micro-Hook	2.60
304XM-60-S*	60″	Ass't of ten colors	26.00

*Lead wire is No. 24 AWG with 19 × 36 silver coated stranding and Teflon insulation. †Also available with No. 28 AWG wire with 7 × 36 tinned stranding; to order, change first digit of number to 7; prices are the same as the 204XM Series.

PISTOL GRIP TEST CONNECTORS

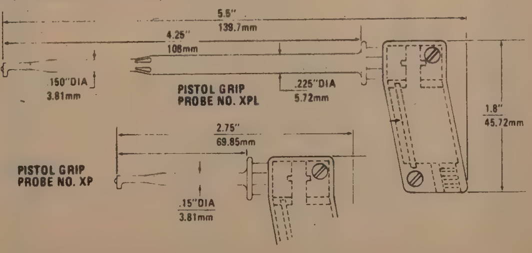
Mini-Hook size and convenience with provisions for building in circuitry. Epoxy glass board, 1″ × 0.6″, enclosed in handle. Strain relief, coaxial cable clamp and cable exit hole built into butt of grip. Designed for RG58C/U, but adaptable to other sizes. Available in ten standard colors for the body; pistol grip is black. Specify color when ordering.

E-Z-Hook No. XP1 Test Connector—Net Each $2.60

E-Z-Hook No. XP1-NM—Same as XP1, except has non-magnetic spring. Net Each $2.70

E-Z-Hook No. XPL1—Same as XP1, except 2 3/4″ longer. Net Each $3.30

E-Z-Hook No. XPL1-NM—Same as XPL1, except has non-magnetic spring. Net Each $3.40



E-Z-HOOK
Division of Tektest, Inc.

Test Connectors

MINI-HOOK TEST CONNECTORS

The Mini-Hook bridges the gap between the Micro-Hook and the Macro-Hook. Will connect to leads up to .040″ or will fit vertically onto square .025″ wire wrap posts. Available in black, brown, red, orange, yellow, green, blue, violet, gray or white, plus any of the 1000 color combinations in the Kilo-Color system. Specify color desired when ordering.

E-Z-Hook No. X100W Mini-Hook Connector—Net Each ...**$0.90**

E-Z-Hook No. X100W-S—Assortment of 1 each of ten colors. Net Each **$9.00**

E-Z-Hook No. X100W-NM—X100W with non-magnetic spring. Net Each **$1.00**

E-Z-Hook No. X100W-NM-S—Assortment of 1 each of ten colors. Net Each **$10.00**

E-Z-Hook No. XR—Same as No. X100W, except foot and hook have been enlarged to accommodate wires to .059″. Net Each **$1.10**

E-Z-Hook No. XR-S—Assortment of 1 each of ten colors. Net Each **$11.00**

E-Z-Hook No. XR25—Same as No. XR, except that a .025″ square post is built into the plunger. Net Each **$1.50**

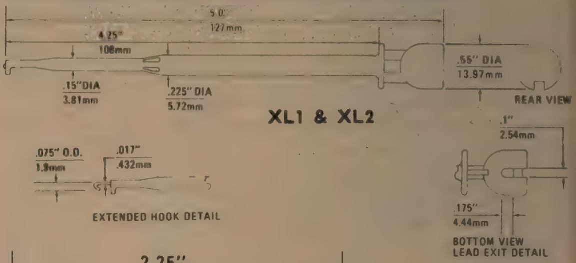
E-Z-Hook No. XR25-S—Assortment of 1 each of ten colors. Net Each **$15.00**

E-Z-Hook No. XL1—Same as No. X100W, except 2 3/4″ longer. Net Each **$1.60**

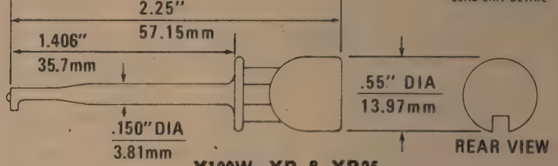
E-Z-Hook No. XL1-S—Assortment of 1 each of ten colors. Net Each **$16.00**

E-Z-Hook No. XL1-NM—Same as No. XL1, except has non-magnetic spring. Net Each **$1.70**

E-Z-Hook No. XL1-NM-S—Assortment of 1 each of ten colors. Net Each **$17.00**



XL1 & XL2



X100W, XR & XR25

MINI-HOOK TEST LEADS

Test leads combining the X100W Mini-Hook with various connectors on the other end. Leads are extra-flexible, insulated thermoplastic No. 22 AWG wire with 65 × 40 tinned stranding.

E-Z-Hook No.	Lead Length	Second Connector	Net Each
AX-1W	32″	.080″ pin plug	**$ 1.70**
AX-1W-S	32″	Ass't of AX-1W in ten colors	**17.00**
BX-1W	32″	Standard banana plug	**1.70**
BX-1W-S	32″	Ass't of ten colors	**17.00**
CX-1W	32″	Miniature banana plug	**1.95**
CX-1W-S	32″	Ass't of ten colors	**19.50**
216W	32″	Stacking min. banana plug	**2.00**
216W-S	32″	Ass't of ten colors	**20.00**
201W	32″	Stacking banana plug	**1.75**
201W-S	32″	Ass't of ten colors	**17.50**
202W	32″	.080″ stacking pin plug	**2.00**
202W-S	32″	Ass't of ten colors	**20.00**
203-6W†	6″	.025″ square insulated socket	**1.70**
203-6W-S†	6″	Ass't of ten colors	**17.00**
203-12W*	12″	.025″ square insulated socket	**1.70**
203-12W-S†	12″	Ass't of ten colors	**17.00**
203-18W†	18″	.025″ square insulated socket	**1.70**
203-18W-S†	18″	Ass't of ten colors	**17.00**
203-24W†	24″	.025″ square insulated socket	**1.70**
203-24W-S†	24″	Ass't of ten colors	**17.00**
203-36W†	36″	.025″ square insulated socket	**1.70**
203-36W-S†	36″	Ass't of ten colors	**17.00**
203-48W†	48″	.025″ square insulated socket	**1.80**
203-48W-S†	48″	Ass't of ten colors	**18.00**
203-60W†	60″	.025″ square insulated socket	**1.90**
203-60W-S†	60″	Ass't of ten colors	**19.00**
230-6W†	6″	.025″ square pin plug	**1.70**
230-6W-S†	6″	Ass't of ten colors	**17.00**
230-12W†	12″	.025″ square pin plug	**1.70**
230-12W-S†	12″	Ass't of ten colors	**17.00**
230-18W†	18″	.025″ square pin plug	**1.70**
230-18W-S†	18″	Ass't of ten colors	**17.00**
230-24W†	24″	.025″ square pin plug	**1.70**
230-24W-S†	24″	Ass't of ten colors	**17.00**
230-36W†	36″	.025″ square pin plug	**1.70**
230-36W-S†	36″	Ass't of ten colors	**17.00**
230-48W†	48″	.025″ square pin plug	**1.80**
230-48W-S†	48″	Ass't of ten colors	**18.00**
230-60W†	60″	.025″ square pin plug	**1.90**
230-60W-S†	60″	Ass't of ten colors	**19.00**
204-6W	6″	Mini-Hook X100W	**1.95**
204-6W-S	6″	Ass't of ten colors	**19.50**
204-12W	12″	Mini-Hook X100W	**1.95**
204-12W-S	12″	Ass't of ten colors	**19.50**
204-18W	18″	Mini-Hook X100W	**1.95**
204-18W-S	18″	Ass't of ten colors	**19.50**
204-24W	24″	Mini-Hook X100W	**1.95**
204-24W-S	24″	Ass't of ten colors	**19.50**
204-36W	36″	Mini-Hook X100W	**1.95**
204-36W-S	36″	Ass't of ten colors	**19.50**
204-48W	48″	.025″ square pin plug	**2.00**
204-48W-S	48″	Ass't of ten colors	**20.00**
204-60W	60″	.025″ square pin plug	**2.05**
204-60W-S	60″	Ass't of ten colors	**20.50**
304-6W*	6″	.025″ square pin plug	**2.30**
304-6W-S*	6″	Ass't of ten colors	**23.00**
304-12W†	12″	.025″ square pin plug	**2.30**
304-12W-S*	12″	Ass't of ten colors	**23.00**
304-18W*	18″	.025″ square pin plug	**2.30**
304-18W-S*	18″	Ass't of ten colors	**23.00**
304-24W*	24″	.025″ square pin plug	**2.30**
304-24W-S*	24″	Ass't of ten colors	**23.00**
304-36W*	36″	.025″ square pin plug	**2.30**
304-36W-S	36″	Ass't of ten colors	**23.00**
304-48W*	48″	.025″ square pin plug	**2.40**
304-48W-S*	48″	Ass't of ten colors	**24.00**
304-60W	60″	.025″ square pin plug	**2.55**
304-60W-S*	60″	Ass't of ten colors	**25.50**

E-Z-Hook No.	Lead Length	Second Connector	Net Each
		XL MINI-HOOK	
AXL1	32″	.080″ pin plug	**$ 2.30**
AXL1-S	32″	Ass't of ten colors	**23.00**
BXL1	32″	Standard banana plug	**2.30**
BXL1-S	32″	Ass't of ten colors	**23.00**
CXL1	32″	Miniature banana plug	**2.65**
CXL1-S	32″	Ass't of ten colors	**26.50**
216XL1	32″	Stacking min. banana plug	**2.50**
216XL1-S	32″	Ass't of ten colors	**25.00**
201XL1	32″	Stacking banana plug	**2.55**
201XL1-S	32″	Ass't of ten colors	**25.50**
202XL1	32″	.080″ stacking pin plug	**2.55**
202XL1-S	32″	Ass't of ten colors	**25.50**
		XR MINI-HOOK	
AXR	32″	.080″ pin plug	**$ 2.00**
AXR-S	32″	Ass't of ten colors	**20.00**
BXR	32″	Standard banana plug	**2.00**
BXR-S	32″	Ass't of ten colors	**20.00**
CXR	32″	Miniature banana plug	**2.25**
CXR-S	32″	Ass't of ten colors	**22.50**
216XR	32″	Stacking min. banana plug	**2.30**
216XR-S	32″	Ass't of ten colors	**23.00**
202XR	32″	.080″ stacking banana plug	**2.30**
202XR-S	32″	Ass't of ten colors	**23.00**
204XR-6	6″	Mini-Hook XR	**2.60**
204XR-6-S	6″	Ass't of ten colors	**26.00**
204XR-12	12″	Mini-Hook XR	**2.60**
204XR-12-S	12″	Ass't of ten colors	**26.00**
204XR-18	18″	Mini-Hook XR	**2.60**
204XR-18-S	18″	Ass't of ten colors	**26.00**
204XR-24	24″	Mini-Hook XR	**2.60**
204XR-24-S	24″	Ass't of ten colors	**26.00**
204XR-36	36″	Mini-Hook XR	**2.60**
204XR-36-S	36″	Ass't of ten colors	**26.00**
204XR-48	48″	Mini-Hook XR	**2.70**
204XR-48-S	48″	Ass't of ten colors	**27.00**
204XR-60	60″	Mini-Hook XR	**2.75**
204XR-60-S	60″	Ass't of ten colors	**27.50**
304XR-6*	6″	Mini-Hook XR	**2.60**
304XR-6-S*	6″	Ass't of ten colors	**26.00**
304XR-12*	12″	Mini-Hook XR	**2.60**
304XR-12-S*	12″	Ass't of ten colors	**26.00**
304XR-18*	18″	Mini-Hook XR	**2.60**
304XR-18-S*	18″	Ass't of ten colors	**26.00**
304XR-24*	24″	Mini-Hook XR	**2.60**
304XR-24-S*	24″	Ass't of ten colors	**26.00**
304XR-36*	36″	Mini-Hook XR	**2.60**
304XR-36-S*	36″	Ass't of ten colors	**26.00**
304XR-48*	48″	Mini-Hook XR	**2.70**
304XR-48-S*	48″	Ass't of ten colors	**27.00**
304XR-60*	60″	Mini-Hook XR	**2.80**
304XR-60-S*	60″	Ass't of ten colors	**28.00**

†Also available with No. 28 AWG wire with 7 × 36 stranding. to order, change first digit of number to 7; prices are the same as the 204XR Series. *Lead wire is No. 24 AWG with 19 × 36 silver coated stranding and Teflon insulation.

E-Z-HOOK

Division of Tektest, Inc.

Test Connectors

MACRO-HOOK TEST CONNECTORS

The heavy duty Test Hook. Ideal for connection to large leads (up to .125"), terminals and lugs. Conductor and hook are equivalent in surface area to No. 14 AWG wire. Available in ten colors and the Kilo-Color capability. Specify color when ordering.

E-Z-Hook No. XH Macro-Hook Connector—Net Each $2.50

E-Z-Hook No. XH-S—Assortment of 1 each of ten colors. Net Each $25.00

E-Z-Hook No. XJ Macro-Hook Connector—Same as No. XH, except that an insulation-piercing needle point has been added in the hook. Net Each $3.15

E-Z-Hook No. XJ-S—Assortment of 1 each of ten colors. Net Each $31.50

E-Z-Hook No. XHL Macro-Hook Connector—Same as No. XH, except 2 1/4" longer. Net Each $2.75

E-Z-Hook No. XHL-S—Assortment of 1 each of ten colors. Net Each $27.50

E-Z-Hook No. XJL Macro-Hook Connector—Same as No. XJ, except 2 1/4" longer. Net Each $3.40

E-Z-Hook No. XJL-S—Assortment of 1 each of ten colors. Net Each $34.00

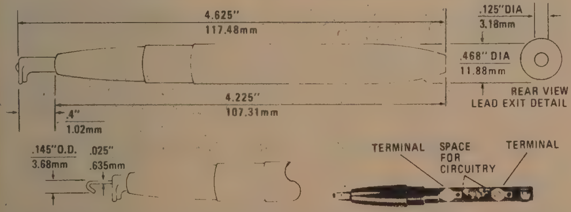
MACRO-HOOK TEST LEADS

Test leads combining the Macro-Hook connector with various connectors on the other end. Straight leads are No. 18 AWG with 65 × 36 tinned stranding and PVC insulation. Coiled leads are No. 20 AWG with 42 × 36 stranding and urethane jacket over PVC insulation.

E-Z-Hook No.	Lead Length	Second Connector	Net Each
XH MACRO-HOOK			
AXH	50"	.080" pin plug	$ 3.95
AXH-S	50"	Ass't of ten colors	39.50
AXHC	60"*	.080" pin plug	4.85
601XH	50"	Stacking banana plug	5.10
601XHC	60"*	Stacking banana plug	6.00
604XH-12	12"	Macro-Hook XH	5.85
604XH-12-S	12"	Ass't of ten colors	58.50
604XH-18	18"	Macro-Hook XH	5.85
604XH-18-S	18"	Ass't of ten colors	58.50
604XH-24	24"	Macro-Hook XH	5.85
604XH-24-S	24"	Ass't of ten colors	58.50
604XH-36	36"	Macro-Hook XH	6.00
604XH-36-S	36"	Ass't of ten colors	60.00
604XH-48	48"	Macro-Hook XH	6.15
604XH-48-S	48"	Ass't of ten colors	61.50
604XH-60	60"	Macro-Hook XH	6.25
604XH-60-S	60"	Ass't of ten colors	62.50
604XHC-60	60"*	Macro-Hook XH	8.75
XHL MACRO-HOOK			
AXHL	50"	.080" pin plug	$ 4.25
AXHL-S	50"	Ass't of ten colors	42.50
AXHLC	60"*	.080" pin plug	5.10
601XHL	50"	Stacking banana plug	5.35
601XHLC	60"*	Stacking banana plug	6.25
604XHL-12	12"	Macro-Hook XHL	6.05
604XHL-12-S	12"	Ass't of ten colors	60.50
604XHL-18	18"	Macro-Hook XHL	6.05
604XHL-18-S	18"	Ass't of ten colors	60.50
604XHL-24	24"	Macro-Hook XHL	6.05
604XHL-24-S	24"	Ass't of ten colors	60.50
604XHL-36	36"	Macro-Hook XHL	6.20
604XHL-36-S	36"	Ass't of ten colors	62.00
604XHL-48	48"	Macro-Hook XHL	6.30
604XHL-48-S	48"	Ass't of ten colors	63.00
604XHL-60	60"	Macro-Hook XHL	6.45
604XHL-60-S	60"	Ass't of ten colors	64.50
604XHLC-60	60"*	Macro-Hook XHL	9.25

*Coiled, retractile cable.

SLIM-LINE TEST CONNECTORS

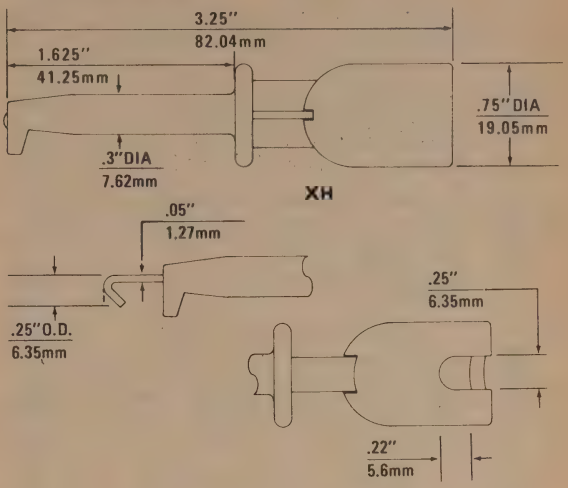

4.625"
117.48mm
.125"DIA
3.18mm
.468" DIA
11.88mm
REAR VIEW
LEAD EXIT DETAIL
4.225"
107.31mm
.4"
1.02mm
.145"O.D.
3.68mm
.025"
.635mm
TERMINAL
SPACE FOR CIRCUITRY
TERMINAL

Light weight probe has screw-on cover for ready access to repair or replace internal circuitry or connections. Designed for connections to leads up to .0625". Nickel-silver conductor and hook. Stainless steel spring. Nylon slide. Tenite body and cover available in black, red, orange, green, blue and silver. Slide is red. Specify color when ordering.

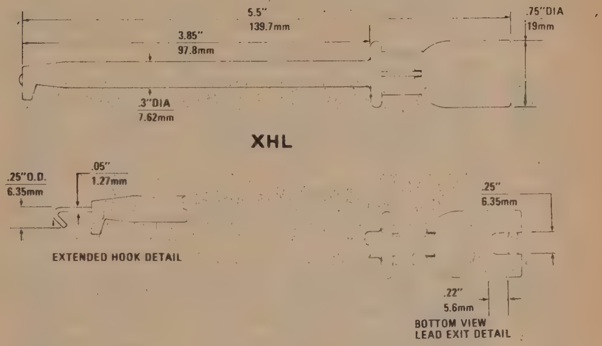
E-Z-Hook No. 54-1 Test Connector—Net Each $1.75

E-Z-Hook No. 54-2—Same as 54-1, except conductor and hook are gold-plated. Net Each $1.85

E-Z-Hook No. 52—Same as 54-1, except that hook and slide have been replaced with .080" diam. pin probe. Net Each $1.65

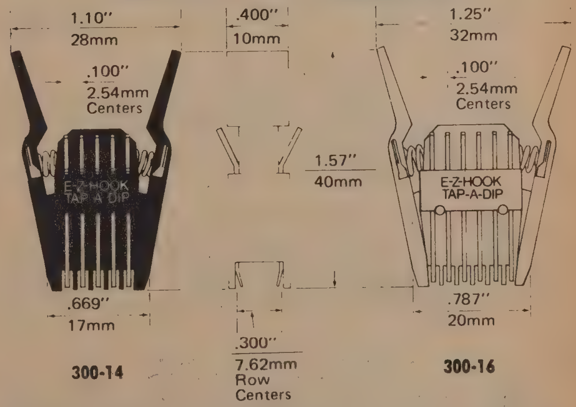

3.25"
82.04mm
1.625"
41.25mm
.75"DIA
19.05mm
.3"DIA
7.62mm
.05"
1.27mm
.25"
6.35mm
.25"O.D.
6.35mm
.22"
5.6mm

XH


5.5"
139.7mm
3.85"
97.8mm
.75"DIA
19mm
.3"DIA
7.62mm
.25"O.D.
6.35mm
.05"
1.27mm
EXTENDED HOOK DETAIL
.25"
6.35mm
.22"
5.6mm
BOTTOM VIEW
LEAD EXIT DETAIL

XHL

TAP-A-DIP™ DIP CONNECTORS


1.10"
28mm
.400"
10mm
1.25"
32mm
.100"
2.54mm
Centers
.100"
2.54mm
Centers
E-Z-HOOK
TAP-A-DIP
1.57"
40mm
E-Z-HOOK
TAP-A-DIP
.669"
17mm
.300"
7.62mm
Row
Centers
.787"
20mm

300-14

300-16

Connectors for 14- or 16-pin DIPs lock on to the DIP. End contacts of the TAP-A-DIP lock under each of the end leads on the DIP, eliminating possibility of the unit popping off and causing shorts. The width of the TAP-A-DIP is the same as the DIP socket and does not increase during insertion and removal. Ideal for high-density boards. Beryllium copper contacts provide wiping action during insertion—give positive contact. Contacts terminate in .025" square posts at the top of the TAP-A-DIP and accept X100W Mini-Hook either vertically or horizontally, XM Micro-Hook horizontally, or .025" square push-on sockets. Model 300-14 for 14-pin ICs is coded black; Model 300-16 for 16-pin ICs is yellow.

E-Z-Hook No. 300-14 Connector—Net Each $9.60

E-Z-Hook No. 300-16 Connector—Net Each $9.95

E-Z-HOOK
Division of Tektest, Inc.

Test Connectors

PLUGS AND JACKS

Connectors are available in black, brown, red, orange, yellow, green, blue, violet, gray and white. Specify color when ordering.

STANDARD .080" PIN PLUG

Nylon handle, nickel-plated brass body. Solderless. Accepts lead wire up to .144" diam.
E-Z-Hook No. 9201—Net Each $0.50
E-Z-Hook No. 9201-S—Assortment of ten colors. Net Each $5.00

STANDARD BANANA PLUG

Nylon handle, nickel-plated brass body. Nickel-silver springs. Solderless. Accepts lead wire up to .144" diam.
E-Z-Hook No. 9202—Net Each $0.55
E-Z-Hook No. 9202-S—Assortment of ten colors. Net Each $5.50

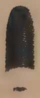
STACKING BANANA PLUG

Nylon handle, nickel-plated brass body. Nickel-silver springs. Solderless. Accepts lead wire up to .089" diam. Accepts standard banana plug at end.
E-Z-Hook No. 9203—Net Each $0.65
E-Z-Hook No. 9203-S—Assortment of ten colors. Net Each $6.50

STACKING .080" PIN PLUG

Nylon handle, nickel-plated brass body. Solderless. Accepts lead wire up to .089" diam. Accepts .080" pin plug at end.
E-Z-Hook No. 9204—Net Each $0.65
E-Z-Hook No. 9204-S—Assortment of ten colors. Net Each $6.50

STANDARD BANANA JACK



Nylon handle, nickel-plated brass socket. Solder type assembly. Accepts lead wire up to .144" diam. Accepts standard banana plug.
E-Z-Hook No. 9210—Net Each $0.60
E-Z-Hook No. 9210-S—Assortment of ten colors. Net Each $6.00

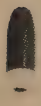
STANDARD PIN JACK

Nylon handle, silver-plated beryllium copper contact spring. Solder type assembly. Accepts .080" pin plug.
E-Z-Hook No. 9211—Net Each $0.55
E-Z-Hook No. 9211-S—Assortment of ten colors. Net Each $5.50
E-Z-Hook No. 9266—Same with extra-long body. Net Each $0.85
E-Z-Hook No. 9266-S—Assortment of ten colors. Net Each $8.50

MINIATURE BANANA PLUG

Nylon handle, nickel-plated phosphor bronze body. Nickel-plated beryllium copper springs. Solder type assembly. Accepts lead wire up to .100" diam.
E-Z-Hook No. 9213—Net Each $0.55
E-Z-Hook No. 9213-S—Assortment of ten colors. Net Each $5.50

MINIATURE BANANA JACK



Nylon handle, nickel-plated brass socket. Solder type assembly. Accepts miniature banana plug. Accepts lead wire up to .144" diam.
E-Z-Hook No. 9252—Net Each $0.60
E-Z-Hook No. 9252-S—Assortment of ten colors. Net Each $6.00

STACKING .080" PIN PLUG

Plastic handle, nickel-plated brass body, beryllium copper spring. Solderless assembly. Accepts lead wire up to .144" diam. Accepts .080" pin plug.
E-Z-Hook No. 9259—Net Each $0.75
E-Z-Hook No. 9259-S—Assortment of ten colors. Net Each $7.50

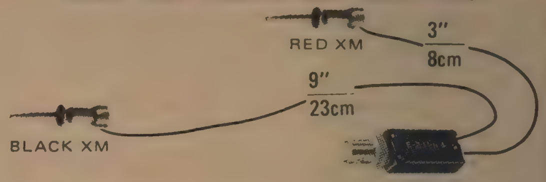
STACKING BANANA PLUG

Plastic handle, nickel-plated brass body, nickel-silver spring. Solderless assembly. Accepts lead wire up to .144" diam. Accepts standard banana plug.
E-Z-Hook No. 9260—Net Each $0.85
E-Z-Hook No. 9260-S—Assortment of ten colors. Net Each $8.50

STACKING MINIATURE BANANA PLUG

Plastic handle, nickel-plated phosphor-bronze body, nickel-plated brass socket. Solderless assembly. Accepts lead wire up to .144" diam. Accepts miniature banana plug.
E-Z-Hook No. 9261—Net Each $0.85
E-Z-Hook No. 9261-S—Assortment of ten colors. Net Each $8.50

MALE AND FEMALE BNC ADAPTORS



E-Z-Hook No. 1001XM—BNC female to Micro-Hook XM. Net Each $4.65
E-Z-Hook No. 1001—BNC female to Mini-Hook X100W. Net Each $4.50
E-Z-Hook No. 1010XM—BNC male to Micro-Hook XM. Net Each $4.65
E-Z-Hook No. 1010—BNC male to Mini-Hook X100W. Net Each $4.50

9001

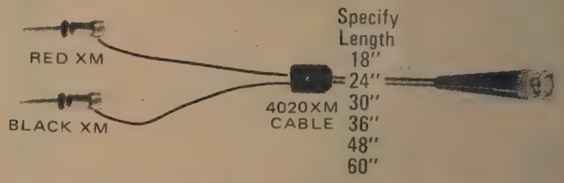
8013

9225

9238

E-Z-Hook No. 9001—BNC female to UHF male. Net Ea. $3.40
E-Z-Hook No. 8013—BNC female to standard banana plug. Net Each $3.00
E-Z-Hook No. 9225—BNC female to standard double banana plug. Net Each $3.45
E-Z-Hook No. 9238—"T" adaptor with two BNC females and one BNC male. Net Each $4.85

BNC MALE TEST CABLES



Red connector has 3" lead to Y block; black connector has 9" lead to Y block. Insert length of coaxial cable in inches as last two digits of type number. Standard lengths are 18", 24", 30", 36", 48" and 60".
E-Z-Hook No. 4020XM-xx—Micro-Hook XM and RG174U cable. Net Each $8.25
E-Z-Hook No. 1020-xx—Mini-Hook X100W and RG58C/U cable. Net Each $7.05
E-Z-Hook No. 1029-xx—Standard alligator clips and RG58C/U cable. Net Each $7.10
E-Z-Hook No. 4029M-xx—Miniature alligator clips and RG174/U cable. Net Each $7.70

DOUBLE BANANA PLUGS

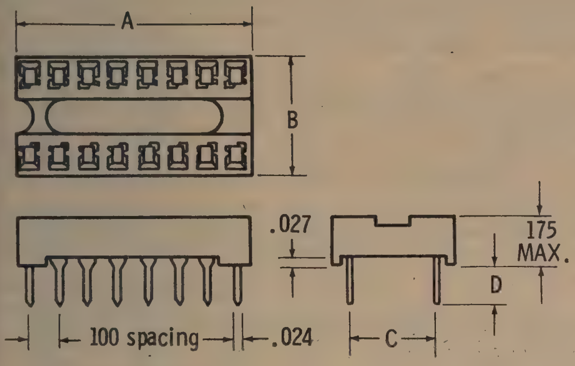
Plugs have nylon handle, nickel-silver springs, and nickel-plated brass socket. Solderless assembly. Black.
E-Z-Hook No. DB750—Stacking standard double banana plug. 3/4" spacing. Net Each $1.95
E-Z-Hook No. DB500—Stacking miniature double banana plug. 1/2" spacing. Net Each $1.50

E-Z-NAILCLIP^{TM} TEST TERMINALS

Nailclips for breadboard circuits. Can be driven into wood like a nail using the T-20 tool, or can be pressed into predrilled holes. Smooth, tough hook holds wire ends firmly against the nylon slide. Will not cut, nick or damage lead wires. Use finger tip or nail to press down on slide and expose hook. Insert stripped wire and release pressure. Available in black, brown, red, orange, yellow, green, blue, violet, gray or white. Specify color when ordering.
E-Z-Hook No. 81-1—Net Each $0.30
E-Z-Hook No. T-20 Installation Tool—Net Each $0.35

DIP Sockets

DIP SOCKETS



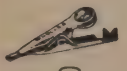
DIP sockets in all popular sizes from 8 to 40 contacts. Tin alloy plated contacts incorporate a patented, high-pressure contact (when mated with pin being inserted) which removes surface oxides and seals out potential oxidation that occurs in looser fitting sockets, assuring essentially the same contact resistance as gold, without the use of gold. DIP sockets accommodate IC packages having virtually any type of finish, even unplated, if resistance requirements permit. Low profile design; only .175" high. Compact body provides maximum utilization of available PC board area. Black, glass-reinforced, thermoplastic polyester body. **Terminal Contact Material And Plating:** Type P-11, copper alloy, tin alloy post-plated; Type P-108, beryllium copper, tin alloy post-plated; Type P-110, beryllium copper with minimum of 30 microinches of gold over 75 microinches of nickel; Type P-112, beryllium copper, tin lead alloy post-plated. **Contact Resistance:** Type P-108, 20 milliohms max.; all others, 30 milliohms max. **Test Current:** 1 amp. **Operating Temperature (Continuous):** Type P-11, −40°C to +75°C; Type P-108, −40°C to +105°C; Type P-110, −40°C to +125°C; Type P-112, −40°C to +105°C. **Insulation Resistance:** 100,000 megohms min. at 500 VDC. **Dielectric Withstanding Voltage:** 1,000 V rms min. **Durability:** 50 cycles with no electrical degradation. **Thermal Shock:** MIL-STD-1344, Method 1003, Condition B; no physical or electrical degradation. **Moisture Resistance:** MIL-STD-202, Method 106, except omit steps 7a and 7b; 300 megohms min. **Vibration:** MIL-STD-1344, Method 2005, Condition 111; no electrical interruption greater than 1 μsec. **Mechanical Shock:** MIL-STD-202, Method 213, Condition 1; no electrical interruption greater than 1 μsec. Performance characteristics conform to requirements of MIL-S-83734A.

Mallory No.	No. of Contacts	Dimensions (Ins.)				Net Each, Lots of						
		A	B	C	D	1-49	50-99	100-499	500-999	1000-4999	5000-9999	10,000-Up
TIN ALLOY*												
DILB8P-11	8	.400	.400	.300	.130	$0.226	$0.213	$0.151	$0.13	$0.11	$0.103	$0.094
DILB14P-11	14	.700	.400	.300	.130	.283	.266	.182	.158	.133	.124	.114
DILB16P-11	16	.800	.400	.300	.130	.339	.319	.203	.176	.148	.139	.127
DILB18P-11	18	.900	.400	.300	.130	.377	.354	.238	.206	.173	.162	.148
DILB20P-11	20	1.000	.400	.300	.130	.424	.399	.259	.224	.188	.176	.161
DILB22P-11	22	1.100	.500	.400	.130	.484	.456	.280	.242	.203	.191	.174
DILB24P-11	24	1.200	.700	.600	.130	.565	.532	.314	.272	.229	.214	.196
DILB28P-11	28	1.400	.700	.600	.130	.678	.638	.368	.318	.268	.251	.229
DILB40P-11	40	2.000	.700	.600	.130	.848	.798	.521	.45	.379	.355	.324
TIN ALLOY												
DILB8P-108	8	.400	.400	.300	.130	$0.424	$0.399	$0.244	$0.211	$0.178	$0.166	$0.152
DILB14P-108	14	.700	.400	.300	.130	.484	.456	.296	.256	.216	.202	.185
DILB16P-108	16	.800	.400	.300	.130	.565	.532	.331	.286	.241	.226	.206
DILB18P-108	18	.900	.400	.300	.130	.678	.638	.384	.331	.279	.262	.239
DILB20P-108	20	1.000	.400	.300	.130	.678	.638	.418	.361	.304	.285	.261
DILB22P-108	22	1.100	.500	.400	.130	.848	.798	.453	.392	.330	.309	.282
DILB24P-108	24	1.200	.700	.600	.130	.848	.798	.506	.437	.368	.345	.315
DILB28P-108	28	1.400	.700	.600	.130	1.13	1.063	.593	.512	.413	.404	.369
DILB40P-108	40	2.000	.700	.600	.130	1.695	1.595	.837	.723	.609	.571	.521
GOLD												
DILB8P-110 M83734/2-013	8	.400	.400	.300	.130	PRICES ON REQUEST						
DILB14P-110 M83734/3-013	14	.700	.400	.300	.130							
DILB16P-110 M83734/4-013	16	.800	.400	.300	.130							
DILB18P-110 M83734/5-013	18	.900	.400	.300	.130							
DILB20P-110 M83734/13-013	20	1.000	.400	.300	.130							
DILB22P-110 M83734/6-013	22	1.100	.500	.400	.130							
DILB24P-110 M83734/8-013	24	1.200	.700	.600	.130							
DILB28P-110 M83734/7-013	28	1.400	.700	.600	.130							
DILB40P-110 M83734/10-013	40	2.000	.700	.600	.130							
TIN/LEAD												
DILB8P-112 M83734/2-015	8	.400	.400	.300	.130	PRICES ON REQUEST						
DILB14P-112 M83734/3-015	14	.700	.400	.300	.130							
DILB16P-112 M83734/4-015	16	.800	.400	.300	.130							
DILB18P-112 M83734/5-015	18	.900	.400	.300	.130							
DILB20P-112 M83734/13-015	20	1.000	.400	.300	.130							
DILB22P-112 M83734/6-015	22	1.100	.500	.400	.130							
DILB24P-112 M83734/8-015	24	1.200	.700	.600	.130							
DILB28P-112 M83734/7-015	28	1.400	.700	.600	.130							
DILB40P-112 M83734/10-015	40	2.000	.700	.600	.130							

*Type P-11 sockets are available from stock; all others available on special order.

EMHART

Mueller Test and Battery Clips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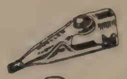
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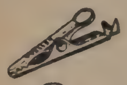
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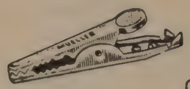
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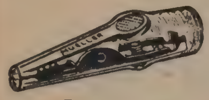
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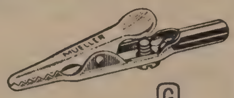
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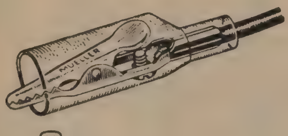
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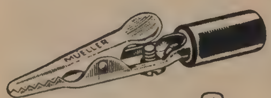
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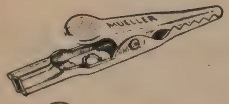
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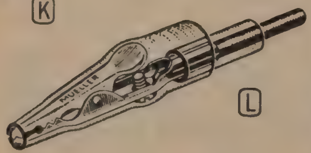
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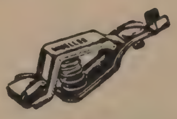
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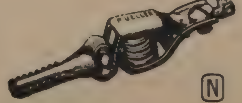
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34 SERIES MICRO-GATOR CLIPS

Smallest insulated clip ever made. Microscopic tip can be used where no other clip will do: Printed circuits, tight spots and crowded, tiny terminals. Same speed, free-handed ease and convenience as other Mueller clips. When used with separate, skin-tight insulator, the tip is no bigger than the head of a pin; yet, has ample thumb grip. Sure bite to stand up straight on the smallest terminals; 7/32″ jaw spread; length, 1 3/32″. Solder connection, separate insulator with "lip-action" tip. Locked ear construction for strong hinge. For No. 20 wire or smaller.

Mueller Number	Fig.	Description	Net Each, Lots of 1-9	10	100
34	A	Cadmium-plated steel Micro-gator	$0.22	$0.167	$0.133
34-C	A	Solid copper Micro-gator	.26	.193	.154
36	B	Vinyl insulator*	.13	.10	.08

MINI-GATOR CLIPS

The original miniature alligator clip, improve rivet hinge construction, full-meshing jaw teeth. Ideal for testing miniaturized and subminiaturized equipment. Strong spring gives bite through protective coatings. Easy solder connection. Takes No. 20 or smaller wire. Jaws open 3/16″. Length, 1 1/32″. Nose 11/64″ O.D., including insulator, which has "lip-action" tip.

Mueller Number	Fig.	Description	Net Each, Lots of 1-9	10	100
30	C	Cadmium-plated steel Mini-gator	$0.21	$0.154	$0.123
30-C†	C	Solid copper Mini-gator	.24	.183	.146
32	D	Vinyl insulator*	.13	.10	.08

70 SERIES ALLIGATOR CLIPS

Streamlined, simplified design for low cost efficiency. Cord strain relief ears prevent breakage of lead wire. Makes screw connection faster; soldering easier. Improved meshing teeth; knurled thumb grip and trim shape are ideal for test work in close quarters. Length 1 11/16″. Jaws open 5/16″. Separate insulator has "lip-action" tip so jaws stay covered whether open or closed.

Mueller Number	Fig.	Term. Type	Body Metal	Net Each, Lots of 1-9	10	100
70	E	Solder	Cadmium-plated steel	$0.28	$0.206	$0.165
70-S	E	Screw	Cadmium-plated steel	.30	.226	.181
70-CS†	E	Screw	Solid copper	.43	.319	.255
72	F	.....	Vinyl insulator*	.20	.153	.122

60 SERIES ALLIGATOR CLIPS

New slim-jaw design allows nose of clip to make friction fit in binding post or banana jack. Full meshing teeth grip even finest wires. Barrel connection for banana plug or wire. Small lip for soldering; or, wire may be staked in barrel using staking tool. Strong hinge prevents jaw offset; spring gives hard bite. Available with screw connection, insulated barrel or fully insulated. Jaws open 5/16″. Length 2″ on uninsulated models; 2 11/32″, models with insulated barrel. 63 and 63-C: Length, 2 1/8″; jaws open 1/4″; nose, 13/64″ O.D.

UNINSULATED 60 SERIES

Mueller Number	Fig.	Term. Type	Body Metal	Net Each, Lots of 1-9	10	100
60	G	Solder	Cadmium-plated steel	$0.25	$0.189	$0.151
60-S	G	Screw	Cadmium-plated steel	.33	.247	.198
60-NS§	G	Screw	Cadmium-plated steel	.86	.641	.513
60-CS†	G	Screw	Solid copper	.48	.362	.289
60PR-2	K	‡	Cadmium-plated steel	.39	.289	.231
62	H	.....	Vinyl insulator*	.14	.105	.084

INSULATED 60 SERIES

Mueller Number	Fig.	Term. Type	Body Metal	Net Each, Lots of 1-9	10	100
60-HS	J	Screw	Cadmium-plated steel; insul. barrel	$0.46	$0.348	$0.278
60-CHS†	J	Screw	Solid copper; insulated barrel	.59	.445	.356
63	L	Screw	Cadmium-plated steel; fully insul.	.63	.476	.381
63-C	L	Screw	Solid copper; fully insulated	.73	.544	.435

PEE-WEE CLIPS (FIG. M)

Very small clip for general test purposes. Jaw teeth mesh. Interlocking necks prevent jaw offset. Jaws open 5/16″. Length, 1 1/2″. Screw connection. No. 45-C is completely non-ferrous; has phosphor bronze spring and brass screw. Jaws open 1/4″.

Mueller Number	Description	Net Each, Lots of 1-9	10	100
45	Cadmium-plated steel Pee-Wee clip	$0.32	$0.239	$0.191
45-C†	Solid copper Pee-Wee clip	.47	.353	.282
47	Vinyl insulator*	.18	.132	.106

CROCODILE CLIPS (FIG. N)

Designed for test work in close quarters. Nesting teeth give solid contact along entire length of jaw. Jaws open 5/16″. Length, 2 1/8″. Screw terminal connection. No. 85-C is completely non-ferrous version with brass screw and phosphor-bronze spring. No. 85-T is equipped with standard phone tip on one jaw; otherwise is identical to No. 85; permits use as prod or for clip connections, etc.; length, 2 5/8″.

Mueller Number	Description	Net Each, Lots of 1-9	10	100
85	Cadmium-plated steel crocodile clip	$0.35	$0.265	$0.212
85-C†	Solid copper, non-ferrous crocodile clip	.62	.466	.373
85-T	"Tip-clip" cadmium-plated steel crocodile	.96	.722	.578
87	Vinyl insulator*	.18	.136	.109

*Specify red or black; also available in yellow, blue, white or green, priced 10% higher. †Fed. Spec. W-C-440b, Aug. 11, 1970. ‡Crimped barrel for tight friction-fit on standard phone tip or test prod tip. §Like No. 60-S, except with beryllium copper needle in one jaw for making electrical contact through insulation of wire.

Mueller Test and Battery Clips

GENERAL PURPOSE TEST CLIPS

No. 48-B: Small, general purpose clip used as standard equipment on ignition test sets, electroplating racks, etc. Length, 2". Jaws open ½".
No. 48-C: Same as above, but solid copper; suitable for testing highly rated auto generators. Good current-carrying capacity.
No. 50-C: Solid copper clip with sharp needle in one jaw to pierce wire insulation for immediate electrical contact. Popular for quick connection of trailer lights; used by phone linemen, auto and electrical testing, etc. Jaws make solid contact on round stud terminals. Brass screw; non-corroding beryllium-copper alloy needle. Length, 2¼". Jaws open ½".
No. 51-C: Same as No. 50-C, but without needle. For railway signal work and meter testing. High current-carrying capacity.
No. 27: 20-amp capacity clip used with test sets, voltmeters and shop testing devices. Meshing teeth on all three sides of jaw. Length, 2⁷⁄₁₆". Jaws open ⅝".
No. 27-C: Finest clip made for accurate test work. Same as No. 27, but solid copper; 40-amp capacity.
No. 22: Twin clip with jaws at both ends that may be opened separately or together. For quick splices and temporary repairs. Length, 2". Jaws open ¹³⁄₃₂".

Mueller Number	Fig.	Description	Net Each, Lots of 1-9	10	100
48-B	O	Cadmium-plated steel clip	$0.46	$0.342	$0.274
48-C†	O	Solid copper clip	.55	.415	.332
50-C†	P	Solid copper needle clip	.91	.682	.546
51-C	P	Solid copper test clip	.68	.506	.405
49	....	Vinyl insulator for above clips*	.39	.291	.233
27	Q	Cadmium-plated steel clip	.60	.45	.36
27-C†	Q	Solid copper, 40-amp clip	.81	.605	.484
29	......	Vinyl insulator, 27 and 27-C*	.50	.375	.30
22	R	Cadmium-plated steel twin clip	.49	.368	.295

HEAVY-DUTY TEST AND BATTERY CLIPS

Rugged interlocking neck construction. Series 25 has meshing teeth on three sides of jaw. Lead plated steel clips; No. 25. cadmium-plated. Clips with suffix letter **-A** or **-C** have copper shunt to protect spring. Clips rated 100-amp or more have detachable copper solder lug.

Mueller Number	Fig.	Length	Jaws Open	Cap., Amps	Material	Net Each, Lots of 1-9	10	100
24-A	S	2⅞"	¾"	25	Steel	$0.95	$0.712	$0.57
25	Q	3"	¾"	40	Steel	.85	.635	.508
25-C†	Q	3"	¾"	75	Copper	1.33	.996	.797
21-A	S	4"	1¹⁄₁₆"	50	Steel	1.76	1.32	1.06
21-C†	T	4½"	1¹⁄₁₆"	100	Copper	3.39	2.54	2.03
11-A	T	6"	1⅝"	100	Steel	4.53	3.39	2.72
11-C†	T	6"	1⅝"	200	Copper	5.98	4.49	3.59
26	.....	Vinyl insulator for 24-A, 25 or 25-C*				.67	.50	.40
23	.....	Vinyl insulator for 21-A or 21-C*				1.06	.796	.637
13	.....	Vinyl insulator for 11-A or 11-C*				2.07	1.56	1.24

"BIG BRUTE" TEST CLIP AND WELDING GROUND CLAMP (FIG. T)

Solid copper clip rated 300 amps capacity; even more on short tests. Equipped with removable copper lug for cable attachment. Improved pin-hinge construction. Widely used as welding ground clamp; many applications in heavy test work, on thawing machines and for grounding gasoline trucks. Length, 7¾". Jaws open 2¼".

Mueller Number	Description	Net Each, Lots of 1-9	10	100
33-C†	"Big Brute" 300-amp solid copper clip	$11.41	$8.56	$6.85
35	Red or black insulator for above	5.11	3.83	3.06

PLIER-TYPE BATTERY CLIPS

Hippo-Clip: For battery booster cables and fast chargers. High quality construction and lead-coated spring assure long-life. Built-in solder-strap and clinching ears for quick cable attachment. Minimum handle spread for easy grip, yet has giant 1⁹⁄₁₆" jaw spread. Furnished with red or black vinyl handle insulators. 6" long. Marked for polarity.
Pigmy-Hippo Clip: For battery operated equipment and automotive usage. Flat, wide handle allows positive grip. Won't "squirt away". Exclusive built-in solder-strap and clinching ears for convenient wire attachment. High quality plated spring. Large, 1⅛" jaw spread. Furnished with red or black vinyl handle insulators. 3" long.

Mueller Number	Fig.	Description	Net Each
41-A	V	Hippo-Clip, steel, bright copper-plated, 100 amps	$1.68
41-C†	V	Hippo-Clip, solid copper construction, 200 amps	3.66
46-A	U	Pigmy-Hippo Clip, steel, bright copper-plated, 50 A	.54
46-C	U	Pigmy-Hippo Clip, solid copper construction, 75 A	.81

*Specify red or black; also available in yellow, blue, white or green, priced 10% higher.
†Fed. Spec. W-C-440a, Feb. 5, 1964.

QUALITY, HEAVY-DUTY BATTERY BOOSTER CABLES (FIG. W)

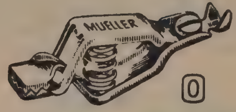
For connecting external, booster battery to "dead" battery in a disabled vehicle. Pure copper cables are finely stranded with rubber insulation for high flexibility even in the coldest weather. Equipped with Hippo-Clips (described above) which are both clinched to cable insulation and soldered for genuine trouble-free operation. Nos. 8A6 and 12A6 have 6 ga. cable with 259 strands of #30 copper wire. No. 12C4 has 4 ga. cable with 413 strands of #30 copper wire. Each set furnished in attractive display carton.

Mueller Number	Length, Ft.	Cable Gauge	Clip No.	Cap., Amps	Net per Pair
8A6	8	6	41-A	100	$21.00
12A6	12	6	41-A	100	24.50
12C4	12	4	41-C	200	36.00

GENERAL PURPOSE CLAMPIPE GROUND CLAMP (FIG. X)

Commonly used for grounding appliances and all kinds of electrical devices. Patented, channeled construction gives 5-point contact with extreme rigidity. Pointed screw cuts through to clean, fresh metal for good contact. Takes pipes up to 1⅜" O.D.

Mueller Number	Description	Net Each, Lots of 1-9	10	100
58	ClamPipe ground clamp	$0.95	$0.715	$0.572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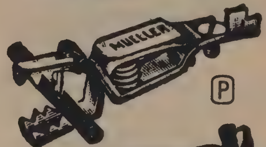
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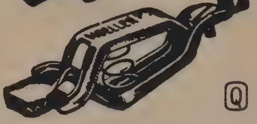
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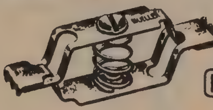
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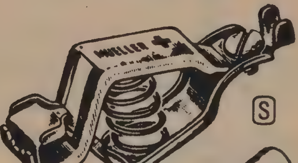
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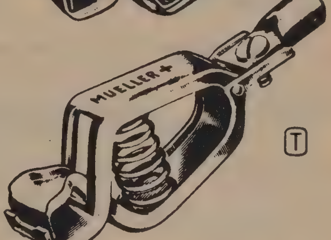
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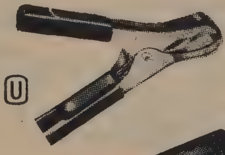
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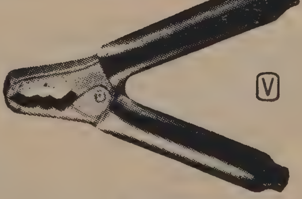
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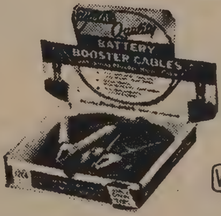
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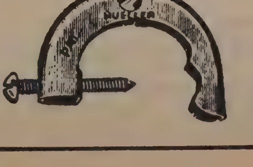
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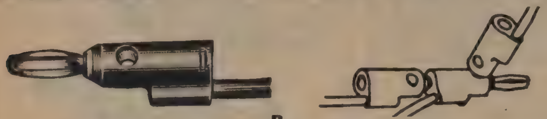
Pomona Patch Cords

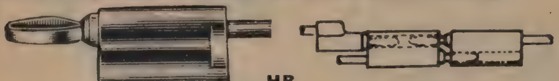
PATCH CORDS AND STACK-UP CONNECTING LEADS

Extra flexible polyvinyl insulation on all wires. Insulating jacket molds the plug, solder connection and wire insulation into a long lasting single piece. Banana plugs are one piece heat treated beryllium copper spring. Contact resistance less than 0.001 ohm per plug in standard .166" dia. banana jacks. Model B, HB, 1440, 1743, 1987 and 2864 rated 7 amps continuous Wire is 18 gauge, stranding 65 x 36 T C with 144" O D. polyvinyl insulation; 5000 WVDC. Reliable solder bonded connections withstand pull test in excess of 50 lbs. **See listings and/or price table for colors and lengths.**



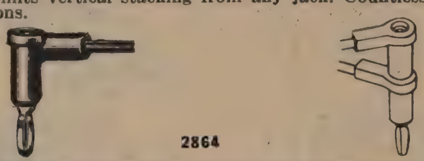
B

Model B—Vertical and horizontal stacking banana plug patch cord. Greatly simplifies circuit connections and changes. Preserves compactness even with the most complex stacking.



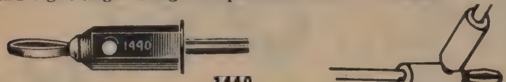
HB

Model HB—Dual purpose extension-stacking patch cord. Dual purpose. Shields all hot leads when used as extension cord. Endless extension couplings possible with any banana plug patch cord. Permits vertical stacking from any jack. Countless 2-in-1 applications.



2864

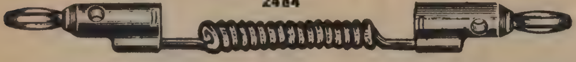
Model 2864—Vertical stacking right-angle banana plug patch cord. Vertical stacking feature allows endless circuit connections and right-angle design keeps wires close to chassis.



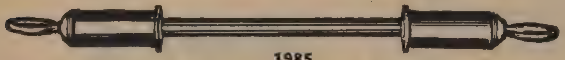
1440

Model 1440—Horizontal stacking banana plug patch cord. Similar to Model B, but without jacks; horizontal stacking only.

2484

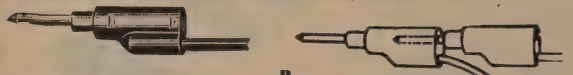


Model 2484—Retractile patch cord with stack-up banana plugs. Cord is approx. ⅓ length when retracted, permitting its use in place of cords of many lengths. Tough thermoplastic molded to plug body and wire. Wire 20 ga., 41 x 36 T.C. stranded with rubber insulation .145" O.D. Rated 5 A cont. at 3000 WVDC. **Colors:** Red, black.



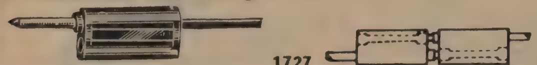
1985

Model 1985—Banana plug patch cord. Ideal for general lab work. Banana plugs at both ends. **Colors:** Red, black.



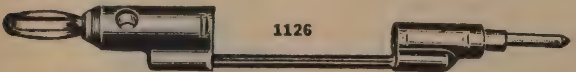
P

Model P—Pin tip vertical stacking patch cord. Ideal for most circuit designs where space is at a premium. Fits instruments with .080" jacks. Beryllium copper contact for vertical stacking; gold flash finish. Tip .080" dia. x ½" extended type. Wire 20 ga., 41 x 36 T.C. stranded with polyvinyl insulation .087" O.D. Rated 5 A continuous; 3000 WVDC.



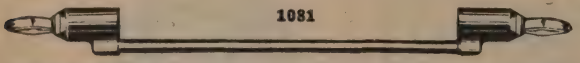
1727

Model 1727—Extension or stack-up patch cord. Dual purpose, .080" dia. tip. Insulates exposed leads when used as extension cord. Many couplings possible. Vertical stacking from .080" jack. Beryllium copper, heat-treated receptacle, gold flashed. Wire 20 AWG, 41 x 36 T.C. strands, .087" O.D. Rating same as Model P. **Colors:** Red, black



1126

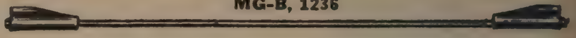
Model 1126—Banana plug to pin stack-up patch cord. Combination of Model B and P: Stack-up banana plug on one end; stack-up pin tip other end. Wire 20 ga., 41 x 36 T.C. stranded with polyvinyl insulation .087" O D Rating same as Model P **Colors:** Red, black



1081

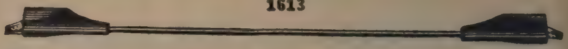
Model 1081—Miniature banana plug stack-up. Fits miniature banana jacks .104" dia. One-piece, beryllium copper spring, gold flashed. Wire 20 ga., 41 x 36 T.C. stranded with polyvinyl insulation .087" O.D. Rating same as Model P.

MG-B, 1236



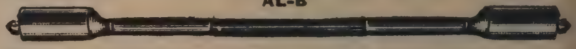
Model MG-B—Insulated minigator clips. Insulated, cadmium-plated steel, miniature clips on each end. Wire 18 ga., 65 x 36 T.C. stranded, polyvinyl insulation .144" O.D. **Colors:** Red, black. **Model 1236—Insulated minigator clips.** Same as Model MG-B above, but wire 20 ga., 41 x 36 T.C. stranded; polyvinyl insulation, .087" O.D. **Colors:** Red or black.

1613



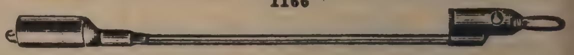
Model 1613—Insulated microgator clips. Insulated microgator clips on each end of 20 ga., 41 x 36 T.C. stranded wire with flexible polyvinyl insulation, .087" O.D. Clips are solid copper. **Colors:** Red or black

AL-B



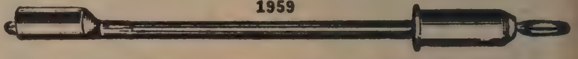
Model AL-B—Insulated alligator clips. Insulated alligator clips on each end of 18 ga. 65 x 36 stranded wire with flexible polyvinyl insulation .144" O.D. Cadmium-plated steel clips. **Colors:** Red or black.

1166

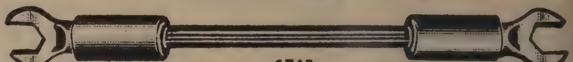


Model 1166—Alligator/stacking banana plug test leads. Adapts to equipment using standard banana jacks. Insulated, cadmium-plated steel alligator clip on one end; banana plug molded to other end. Wire 18 ga., 65 x 36 T.C. stranded. Extra flexible polyvinyl insulation .144" O.D. **Colors:** Red, black.

1959

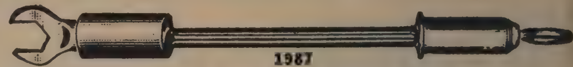


Model 1959—Alligator/banana plug test leads. Insulated, cadmium-plated steel alligator clip on one end; banana plug molded to other end. Wire 18 ga., 65 x 36 T.C. stranded. Extra flexible polyvinyl insulation .144" O.D. **Colors:** Red, black.



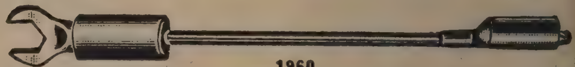
1743

Model 1743—Insulated spade lug jumper. Heavy-duty, machined 1-piece, nickel-plated brass spade lugs molded to 18 AWG, 65 x 36 T.C. stranded wire. Flexible polyvinyl insulation .144" O.D. **Colors:** Black, red.



1987

Model 1987—Insulated spade lug to banana plug jumper. Same as 1743 except heavy-duty machined, nickel-plated brass spade lug on one end; nickel-plated banana plug other end. **Colors:** Red or black.



1960

Model 1960—Insulated spade lug to alligator clip. Machined nickel-plated brass spade lug on one end; cadmium-plated steel alligator clip vinyl insulated other end. Insulated 18 ga., 65 x 36 T.C. stranded wire. Polyvinyl insulation, .144" O.D. **Colors:** Red or black.

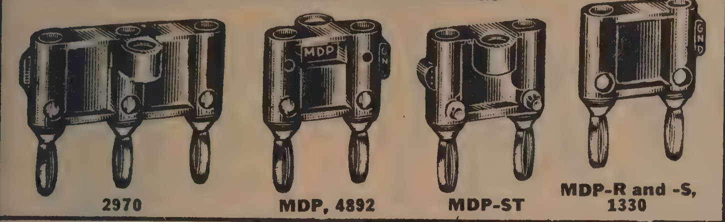
PRICE TABLE

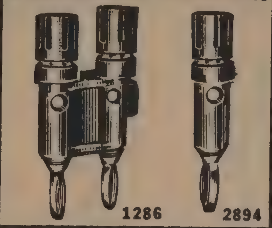
Specify Color: Available in black, brown, red, orange, yellow, green, blue, violet, gray or white unless otherwise noted. Insulators match color of wire on all units.

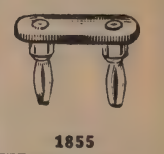
Pomona Models*	Net Each, Lots of 1-24	25-49	50-99	100-249
AL-B-4, -8, -12, -24, -36†	**$2.95**	**$2.66**	**$2.51**	**$2.21**
B-4, -8, -12, -18, -24, -36‡	**2.40**	**2.16**	**2.04**	**1.80**
HB-4, -8, -12, -18, -24, -36‡	**4.15**	**3.74**	**3.53**	**3.11**
MG-B-4, -8, -12, -24, -36†	**2.55**	**2.30**	**2.17**	**1.91**
P-4, -8, -12, -18, -24, -36‡	**2.95**	**2.66**	**2.51**	**2.21**
1081-4, -8, -12, -18, -24, -36‡	**2.85**	**2.57**	**2.42**	**2.14**
1126-4, -8, -12, -18, -24, -36†	**2.85**	**2.57**	**2.42**	**2.14**
1166-4, -8, -12, -24, -36†	**2.95**	**2.66**	**2.51**	**2.21**
1236-4, -8, -12, -24, -36†	**2.50**	**2.25**	**2.13**	**1.88**
1440-4, -8, -12, -18, -24, -36†	**2.95**	**2.66**	**2.51**	**2.21**
1613-4, -8, -12, -24, -36†	**2.95**	**2.66**	**2.51**	**2.21**
1727-4, -8, -12, -18, -24, -36†	**3.95**	**3.56**	**3.36**	**2.96**
1743-12, -24, -36†	**3.55**	**3.20**	**3.02**	**2.66**
1959-4, -8, -12, -24, -36†	**3.40**	**3.06**	**2.89**	**2.55**
1960-12, -24, -36†	**3.75**	**3.38**	**3.19**	**2.81**
1985-4, -8, -12, -18, -24, -36†	**2.95**	**2.66**	**2.51**	**2.21**
1987-12, -24, -36†	**3.50**	**3.15**	**2.98**	**2.63**
2484-36†§	**6.50**	**5.85**	**5.53**	**4.88**
2864-4, -8, -12, -18, -24, -36†	**3.75**	**3.38**	**3.19**	**2.81**

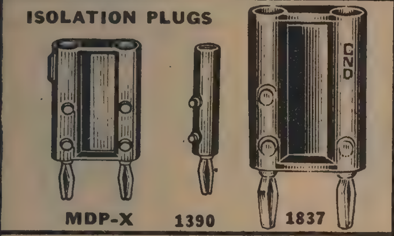
*Suffix indicates length: **-4**, 4"; **-8**, 8"; **-12**, 12", etc. All models also available in longer lengths; information and prices available on request. †Specify red or **black**. ‡Specify colors above (10 colors available). §Extended length.

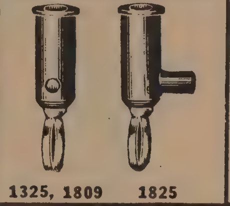
Pomona Plugs and Adapters

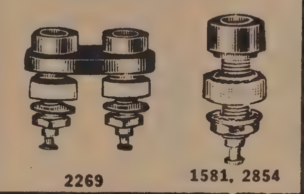

¾″ MOLDED DOUBLE AND TRIPLE PLUGS

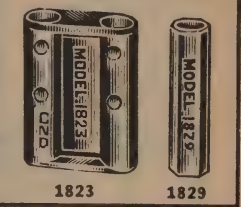

BINDING POST ADAPTERS

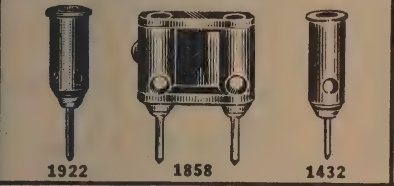

METAL SHORTING BAR

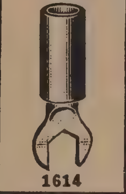

ISOLATION PLUGS

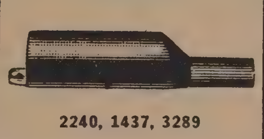

SOLDERLESS PLUGS


BANANA JACKS

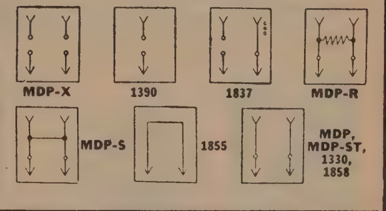

SPLICES


PIN TIP PLUGS


LUG


ALLIGATOR CLIPS

2240, 1437, 3289


CIRCUIT DIAGRAMS

Model 2970 ¾″ Triple Banana Plug—Ideal for balanced line 2-conductor shielded cable assemblies. Banana jacks permit top stack-up for multiple connections. Set screws for leads. **Colors:** Red or black.

Model MDP ¾″ Double Banana Plug—Similar to 2970 but double plug on ¾″ ctrs. Top stack-up type with set screws. **Colors:** Black, brown, red, orange, yellow, green, blue, violet, gray, white.

Model 4892 ¾″ Gold Plated Double Banana Plug—Similar to MDP except gold plated. **Colors:** Black, red.

Model MDP-ST—Similar to MDP but solder turret terminals. **Color:** Black.

Model MDP-S ¾″ Double Banana Plug with Insulated Shorting Bar—Banana plugs internally solder-bonded with 14 ga. wire. Jacks for top stack-up; body cross holes for side stack-up. Resistance under 1.5 milliohms installed. **Colors:** Red, black, white.

Model MDP-R ¾″ Double Banana Plug with Precision Resistor—For uses requiring rapid interchange of resistances. Deposited carbon, ½-watt, 1% resistor molded internally. **Specify** 50, 75, 130, 150, 200, 600, 900, 1K, 5K, 10K, 20K, 50K or 100K ohms; 1 or 10 megohms (value stamped on plug top). **Color:** Red. 1.50″, dia., .56″.

Model 3600 Triaxial Cable Plug—For use with RG 108A/U and Belden 9272. Lgth., 1.50″, dia., .56″.

Model 1330 Component-Mounting ¾″ Double Banana Plug—Features recess for mounting small components, set screws for leads, and banana jacks for top stack-up of multiple connections. **Colors:** Red or black.

Model 1330-ST—Similar to 1330 but solder turret terminals. **Colors:** Red or black.

Model 1286 Binding Posts to ¾″ Double Banana Plug Adapter—Has insulated binding posts on ¾″ ctrs. for rapid mounting and interchangeability of components and top stack-up. Thru-holes in plug body provide side stack-up. **Color:** Black body; red and black posts.

Model 2894 Binding Post to Single Banana Plug Adapter—Features insulated binding post for top stack-up and .166″ cross hole in body for side stack-up. Single banana plug is for use with standard .166″ banana jack. **Colors:** Red or black.

Model 1855 Metal Shorting Bar to ¾″ Double Banana Plugs—Low profile, nickel-plated brass shorting bar. Double plugs on ¾″ ctrs. swaged to 3/32″ thick bar. Resistance under 1.5 milliohms installed.

Model MDP-X ¾″ Double Banana Plug with Four Terminal Isolation—Top stack-up receptacles isolated from plugs. Ideal for inserting matching networks in lab VTVM's, signal generators, etc. Bright tin plated solder turret terminals. **Color:** Red.

Model 1390 Single Banana Plug with Two Terminal Isolation—Top stack-up receptacle (.166″ jack) isolated from lower plug to permit addition of series resistors, diodes, etc. Bright tin plated solder turret terminals. **Colors:** Red or black.

Model 1837 ¾″ Double Banana Plug with Three Terminal Isolation—Excellent for L and Pi-networks. Bright tin plated solder turret terminals. Straight feed-thru ground; hot side isolated. Receptacles, .166″ jacks on ¾″ ctrs. **Color:** Blue.

Model 1325 Stack-Up Solderless Banana Plug—Upper .166″ banana jack to single banana plug. Set screw for wire. **Colors:** Black, brown, red, orange, yellow, green, blue, violet, gray, white.

Model 1825 Same as 1325 but with integral safety collar to cover exposed wire leads. **Colors:** Black, brown, red, orange, yellow, green, blue, violet, gray, white.

Model 1809 Tip Jack to Banana Plug Adapter—Permits .080″ pin tip patch cords to be used with banana jack equipment. .166″ cross hole in body for side stack-up. **Colors:** Red or black.

Model 2269 Insulated ¾″ Double Banana Jack Assembly—Solder turret terminals. Lexan insulators. Two ¾″ holes on ¾″ ctrs. Mounts in panels .063″ to .375″ thick. With washers, nuts. One red, one black jack. **Plate Colors:** Black, **2269-0**; or red, **2269-2.**

Model 1581 Insulated Banana Jack Assembly—Single banana jack version of 2269 with Lexan insulator, solder turret, etc. Insulator head molded to body. Rated 2500 WVDC. **Colors:** Black, brown, red, orange, yellow, green, blue, violet, gray, white.

Model 2854 Gold-Plated Insulated Banana Jack Assembly—Similar to Model 1581.

Model 1823 ¾″ Double Banana Plug Splice—Offers rapid method for splicing cables. Thermoplastic body; .166″ jacks on each end on ¾″ ctrs. **Colors:** Red or black.

Model 1829 Single Banana Plug Splice—Single splice version of 1823. One jack on each end. **Colors:** Red or black.

Model 1922 Stack-Up Solderless Pin Tip Plug—Internal set screw for wire. Gold-flashed tip jack accepts .080″ pin. **Colors:** Black or red.

Model 1858 ¾″ Banana Jacks to Double Pin Tip Adapter—Permits use of single or double banana plugs with tip jack equipment. .080″ pin tips on ¾″ ctrs. Internal set screws. **Color:** Black.

Model 1432 Banana Jack to Pin Tip Adapter—.166″ jack to .080″ pin tip with .166″ cross hole in body for side stack-up. **Colors:** Red or black.

Model 1614 Insulated Spade Lug Adapter—.166″ banana jack to lug with .26″ opening. Fits ¼″ stud. **Colors:** Red, black.

Model 2240 Insulated Alligator Clip to Banana Jack—Vinyl-insulated, cadmium plated clip to banana jack. **Colors:** Red or black. Unassembled.

Model 3289 Gold-Plated Insulated Alligator Clip to Banana Jack—Similar to No. 2240.

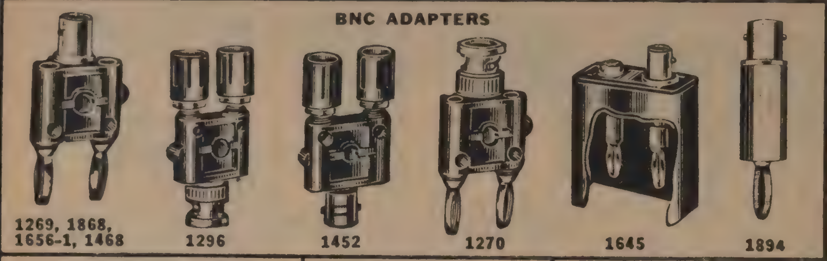
Model 1437 Insulated Alligator Clip to Pin Tip Jack—Vinyl-insulated clip to gold-flashed, beryllium-copper tip jack. **Colors:** Red or black. Unassembled.

When item is available in choice of colors, please specify color desired.

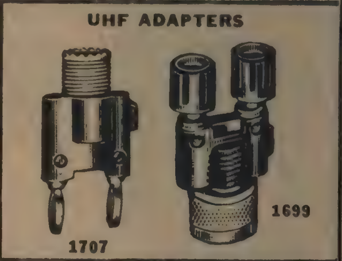
Pomona Model	Net Each, Lots of			
	1-24	25-49	50-99	100-249
MDP	$1.55	$1.40	$1.32	$1.16
MDP-R	5.50	4.95	4.68	4.13
MDP-S	2.35	2.12	2.00	1.76
MDP-S	2.20	1.98	1.87	1.65
MDP-X	5.25	4.73	4.46	3.94
1286	5.25	4.73	4.46	3.94
1325	8.00*	7.20*	6.80*	6.00*
1330	1.55	1.40	1.32	1.16
1330-ST	2.20	1.98	1.87	1.65
1390	3.15	2.84	2.68	2.36
1432	6.00*	5.40*	5.10*	4.50*
1437	1.25	1.13	1.06	.94
1581	6.00*	5.40*	5.10*	4.50*
1614	1.25	1.13	1.06	.94
1809	1.35	1.22	1.15	1.01
1823	1.50	1.35	1.28	1.13
1825	$8.50*	$7.70*	$7.20*	$6.40*
1829	7.50*	6.80*	6.40*	5.60*
1837	4.85	4.37	4.12	3.64
1855	2.25	2.03	1.91	1.69
1858	2.50	2.25	2.13	1.88
1922	2.60	2.34	2.21	1.95
2240	5.00*	4.50*	4.30*	3.80*
2269	1.60	1.44	1.36	1.20
2854	10.50*	9.50*	8.90*	7.90*
2894	2.60	2.34	2.21	1.95
2970	3.25	2.93	2.76	2.44
3289	1.50	1.35	1.28	1.13
3600	13.50	12.15	11.48	10.13
4892	1.95	1.76	1.66	1.46

*Pkg. of 10 per color. †Pkg. of 5 per color.

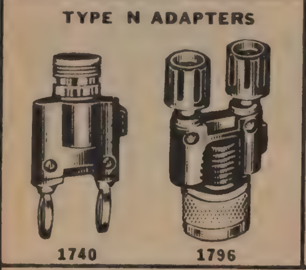
Pomona Test Adapters



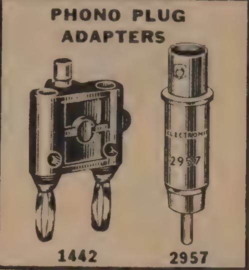
BNC ADAPTERS



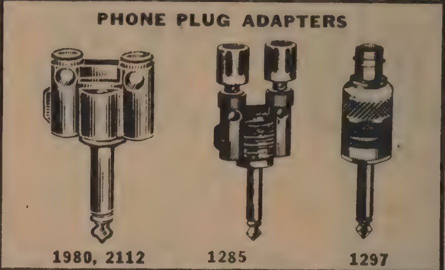
UHF ADAPTERS



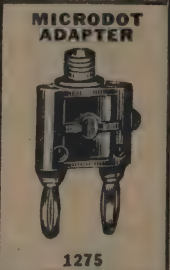
TYPE N ADAPTERS



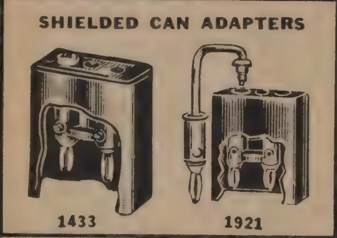
PHONO PLUG ADAPTERS



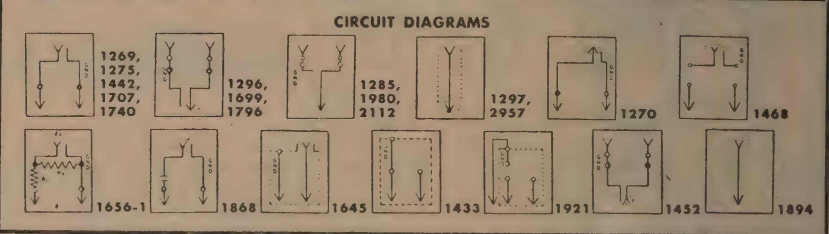
PHONE PLUG ADAPTERS



MICRODOT ADAPTER



SHIELDED CAN ADAPTERS



CIRCUIT DIAGRAMS

Model 1269 BNC Receptacle to ¾″ Double Banana Plug Permits BNC plug to be used with banana jack equipment. Body cross holes for side stack-up. **Color:** Black.

Model 1868 BNC Receptacle to ¾″ Double Banana Plug Signal Isolation Adapter Same as 1269, but molded-in ceramic capacitor rated .01 μF at 200 WVDC, ±20%. Isolates DC signals from VTVM or signal generator. **Color:** Blue.

Model 1656 BNC Matching Pad—Same as 1269, but with built-in deposited carbon ¼-watt, 1% resistor.

Model	Color	Match Ohms
1656-1	Yellow	600 to 50
1656-2	Red	600 to 75

Model 1468 BNC Receptacle to ¾″ Double Banana Plug with Four Terminal Isolation—Similar to 1269, but isolation on all connections. Ideal for matching pad networks. Bright tin plated solder turret terminals. **Color:** Black.

Model 1296 Binding Posts to BNC Plug Adapter Adapts BNC receptacle to ¾″ spaced banana plugs. Insulated binding posts. Excellent for lab 'scopes. Body cross holes for side stack-up. **Color:** Black body; red and black posts.

Model 1452 Binding Posts to BNC Receptacle Adapter Similar to 1296 adapter, but adapts BNC plug to ¾″ spaced banana plugs. **Color:** Black body; red, black posts.

Model 1270 BNC Plug to ¾″ Double Banana Plug Permits BNC receptacle to be used with banana jack equipment. Minimizes number of coaxial connections for maximum efficiency. Body cross holes for side stack-up connections. **Color:** Black.

Model 1645 BNC Receptacle to Shielded ¾″ Double Banana Plug Adapts BNC plug to ¾″ spaced binding posts. Anodized aluminum shield reduces noise pickup more than 70 dB. Recommended for low level inputs to 'scopes, wave analyzers and similar test instruments. **Color:** Black.

Model 1894 BNC Receptacle (UG1094/U) to Single Banana Plug Adapter—Permits BNC plug to be used with banana jack equipment. Inner conductor connected only. Adapts lab VTVM, 'scope and generator inputs to readily available coaxial cables. **Color:** Black.

Model 1707 UHF Receptacle to ¾″ Double Banana Plug—Adapts ¾″ spaced banana jacks to UHF plug. Body cross holes for side stack-up. **Color:** Black.

Model 1699 Binding Posts to UHF Plug Adapter—Adapts UHF receptacle to ¾″ spaced banana plugs. **Color:** Black body; red and black binding posts.

Model 1740 N Receptacle to ¾″ Double Banana Plug—Adapts ¾″ spaced jacks to N plug, as for connecting RF equipment to conventional test equipment. Body cross holes. **Color:** Black.

Model 1796 Binding Posts to N Plug Adapter Adapts N jack to ¾″ spaced banana plugs. Body cross holes. **Color:** Black body; red and black posts.

Model 1442 Phono Jack to ¾″ Double Banana Plug Permits phono plug to be used with equipment having banana jacks or binding posts. Body cross holes. **Color:** Black.

Model 2957 BNC Receptacle (UG1094/U) to Phono Plug Adapter—Readily adapts phono jack equipment to available BNC coaxial cables. All metal construction reduces pickup more than 70 dB. **Color:** Natural.

Model 1980 ¾″ Double Banana Jack to Standard Phone Plug Adapter Adapts phone jack to ¾″ banana plugs. Cross holes. Phone plug ¼″ dia. x 1³⁄₁₆″ lg. **Color:** Black.

Model 2112 ¾″ Double Banana Jack to PJ-051 Phone Plug Adapter Permits single or double banana plugs to be used with equipment having 3-circuit phone jacks for ¼″ dia. phone plugs. Tip connected to adapter hot side, ring to ground side. Sleeve, no connection. PJ-051 plug is interchangeable with WE310. **Color:** Black.

Model 1285 Binding Posts to Standard Phone Plug Adapter—Adapts phone jack to ¾″ spaced banana plugs. Insulated binding posts. Body cross holes. Phone plug ¼″ dia. x 1³⁄₁₆″ lg. **Color:** Black body; red and black posts.

Model 1297 BNC Receptacle (UG1094/U) to Standard Plug Adapter—Permits BNC plug to be used with phone jack equipment. Adapts equipment to available BNC coaxial cables. Phone plug ¼″ dia. x 1³⁄₁₆″ lg. All metal. **Color:** Natural.

Model 1275 Microdot Receptacle to ¾″ Double Banana Plug—Adapts ¾″ spaced jacks to miniature, screw-on coaxial plug. Body cross holes for side stack-up. Receptacle has 10-32 thread. Impedance, 50 ohms. **Color:** Green.

Model 1433 Shielded ¾″ Double Banana Plug with In-Line Cable Entry—Anodized aluminum shell; ⁷⁄₃₂″ dia. cable opening. Bright tin plated solder turret terminals. Noise pickup down 70 dB. One-piece, nickel-plated beryllium copper springs. Ground clearly molded in shell. Rated 15 amps cont. at 1,200 WVDC; capacity, 2.5 pF at 1 MHz. Size, 1¹¹⁄₁₆″ w. x 1″ d. x 1³¹⁄₃₂″ h. **Color:** Black.

Model 1921 Balanced Line, Shielded ¾″ Double Banana Plug—Unique 3-terminal design allows connection to shielded two-conductor cable while maintaining balanced conditions. Anodized aluminum shell. Bright tin plated solder turrets. Low noise and minimum ground loop error. Rated 15 amps cont. at 1,000 WVDC peak, line to shield and at 2,000 WVDC peak, line to line. Capacity at 1 MHz, 2.0 pF line to line and 3.0 pF lines to shield. **Color:** Black.

PRICE TABLE

Pomona Model	Net Each, Lots of				Pomona Model	Net Each, Lots of			
	1-24	25-49	50-99	100-249		1-24	25-49	50-99	100-249
1269	$ 4.25	$ 3.83	$ 3.61	$ 3.19	1656*	$14.95	$13.46	$12.71	$11.21
1270	6.75	6.08	5.74	5.06	1699	11.75	10.58	9.99	8.81
1275	19.95	17.96	16.96	14.96	1707	13.75	12.38	11.69	10.31
1285	7.95	7.16	6.76	5.96	1740	12.95	11.66	11.01	9.71
1296	7.95	7.16	6.76	5.96	1796	14.75	13.28	12.54	11.06
1297	7.25	6.53	6.16	5.44	1868	10.95	9.86	9.31	8.21
1433	6.95	6.26	5.91	5.21	1894	3.95	3.56	3.36	2.96
1442	6.50	5.85	5.53	4.88	1921	13.50	12.15	11.48	10.13
1452	6.50	5.85	5.53	4.88	1980	7.75	6.98	6.59	5.81
1468	12.75	11.48	10.84	9.56	2112	15.95	14.36	13.56	11.96
1645	9.95	8.96	8.46	7.46	2957	6.95	6.26	5.91	5.21

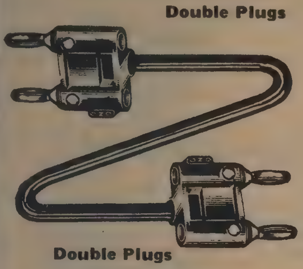
*Specify color.

Pomona Components

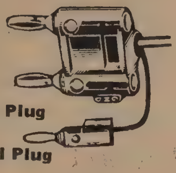
¾" DOUBLE-PLUG STACK-UP PATCH CORD AND TEST LEADS

Molded plastic plug body fully insulated. Permits parallel multiple stacking. Ground connection clearly marked. Shielded double plugs have black-anodized aluminum case. One piece beryllium copper spring. Solder bonded noise-free connection. Fits standard banana jacks .166" dia. **Cable Used: 2BA, 1368, 2184 Series**—Two cond. twisted pair, 18 AWG, stranded 65 x 36 T.C. Vinyl insul.; gray vinyl jacket .250" O.D. Nom. cap., 30 pF/ft. **2BB Series**—Shielded microphone cable, polyethylene insulation; gray vinyl jacket .195" O.D. Nom. cap., 30.8 pF/ft. **2BC Series 4858-C-48**—RG-58C/U shielded coaxial cable; polyethylene insulation; black vinyl jacket .195" O.D. Nom. cap., 30.8 pF/ft. Types with two single plugs or clips on one end color coded; one red, one black.

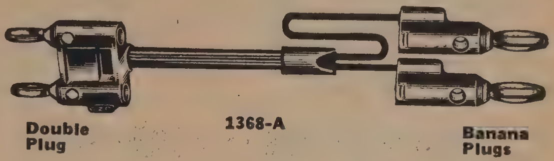
WITH STANDARD AND SHIELDED DOUBLE PLUGS


Double Plugs
Double Plugs

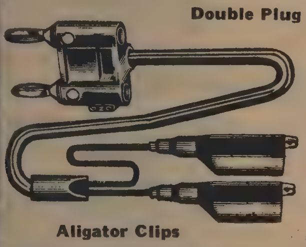
2BA, 2BB, 2BC


Double Plug
and
Ground Plug

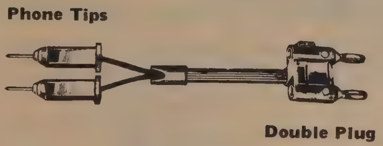
1167


Double Plug
Banana Plugs

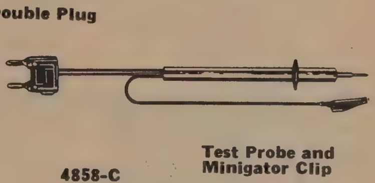
1368-A


Double Plug
Aligator Clips

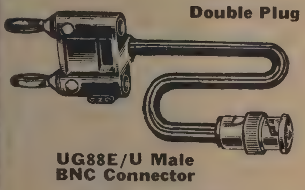
2BA-AL, 2BB-AL, 2BC-AL


Phone Tips
Double Plug

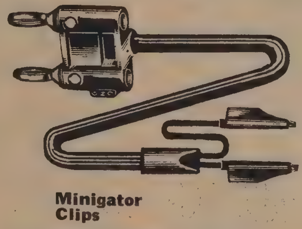
2184-A


Double Plug
Test Probe and
Minigator Clip

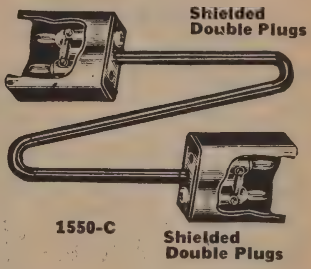
4858-C


Double Plug
UG88E/U Male
BNC Connector

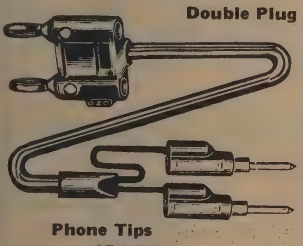
2BB-BNC, 2BC-BNC


Minigator
Clips

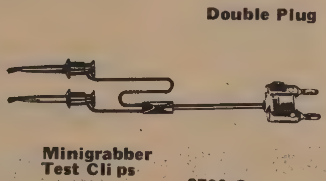
2BA-MG, 2BB-MG, 2BC-MG


Shielded
Double Plugs
Shielded
Double Plugs

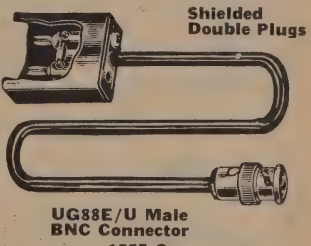
1550-C


Double Plug
Phone Tips

2BC-PP


Double Plug
Minigrabber
Test Clips

3786-C


Shielded
Double Plugs
UG88E/U Male
BNC Connector

1555-C

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
2BA-18, -24, -36	$ 9.25	$ 8.33	$ 7.86	$ 6.94
2BA-48	9.85	8.87	8.37	7.39
2BA-60	10.45	9.41	8.88	7.84
2BB-18, -24, -36	9.25	8.33	7.86	6.94
2BB-48	9.85	8.87	8.37	7.39
2BB-60	10.45	9.41	8.88	7.84
2BC-18, -24, -36	9.25	8.33	7.86	6.94
2BC-48	9.85	8.87	8.37	7.39
2BC-60	10.45	9.41	8.88	7.84
2BA-AL-18, -24, -30, -36	11.95	10.76	10.16	8.96
2BA-AL-48	12.55	11.30	10.67	9.41
2BA-AL-60	13.15	11.84	11.18	9.86
2BB-AL-18, -24, -30, -36	11.95	10.76	10.16	8.96
2BB-AL-48	12.55	11.30	10.67	9.41
2BB-AL-60	13.15	11.84	11.18	9.86
2BC-AL-18, -24, -30, -36	11.95	10.76	10.16	8.96
2BC-AL-48	12.55	11.30	10.67	9.41
2BC-AL-60	13.15	11.84	11.18	9.86
2BB-BNC-18, -24, -30, -36	10.50	9.45	8.93	7.88
2BB-BNC-48	11.10	9.99	9.44	8.33
2BB-BNC-60	11.70	10.53	9.95	8.78
2BC-BNC-18, -24, -30, -36	10.50	9.45	8.93	7.88
2BC-BNC-48	11.10	9.99	9.44	8.33
2BC-BNC-60	11.70	10.53	9.95	8.78

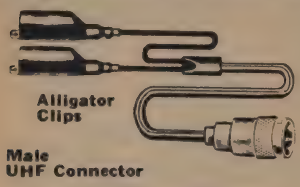
Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
3786-C-18, -24, -36	$ 9.25	$ 8.33	$ 7.86	$ 6.94
3786-C-48	9.85	8.87	8.37	7.39
3786-C-60	10.45	9.41	8.88	7.84
2BC-PP-18, -24, -36	10.50	9.45	8.93	7.88
2BC-PP-48	11.10	9.99	9.44	8.33
2BC-PP-60	11.70	10.53	9.95	8.78
1167-18, -24, -30, -36	17.95	16.16	15.26	13.46
1167-48	18.55	16.70	15.77	13.91
1167-60	19.15	17.24	16.28	14.36
2BA-MG-18, -24, -30, -36	12.50	11.25	10.63	9.38
2BA-MG-48	13.10	11.79	11.14	9.83
2BA-MG-60	13.70	12.33	11.65	10.28
2BB-MG-18, -24, -30, -36	12.50	11.25	10.63	9.38
2BC-MG-18, -24, -30, -36	12.50	11.25	10.63	9.38
2BC-MG-48	13.10	11.79	11.14	9.83
2BC-MG-60	13.70	12.33	11.65	10.28
1368-A-18, -24, -30, -36	13.95	12.56	11.86	10.46
1368-A-48	14.55	13.10	12.37	10.91
1368-A-60	15.15	13.64	12.88	11.36
4858-C-48	13.95	12.56	11.86	10.46
1550-C-36	16.95	15.26	14.41	12.71
1555-C-36	17.95	16.16	15.26	13.46
1555-C-60	19.15	17.24	16.28	14.36

*Suffix indicates length in inches.

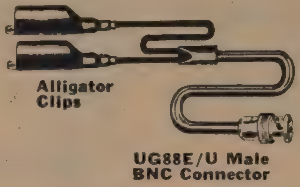
Pomona Components

CONNECTING LEADS AND CABLE ASSEMBLIES

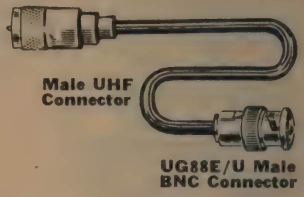
Cable Used: B—Shielded mike cable with polyethylene insulation and gray vinyl jacket. Nom. cap., 30.8 pF/ft. O.D., .195". **C**—RG-58C/U shielded coax with polyethylene insulation; black vinyl jacket. Nom. cap., 30.8 pF/ft. O.D., .195". Types with two single plugs or clips on one end color coded; one red, one black.



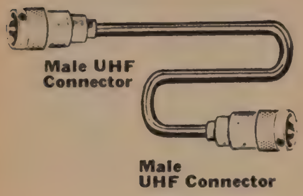
AL-C-UHF



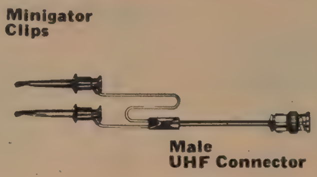
AL-B-BNC, AL-C-BNC



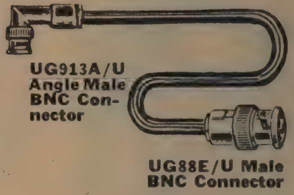
1367-C



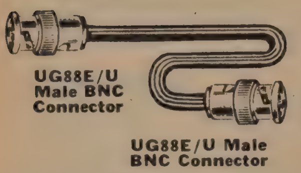
UHF-C



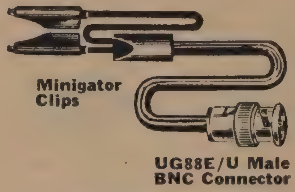
3787-C



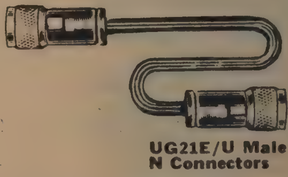
1383-C



BNC-B, BNC-C



MG-B-BNC, MG-C-BNC



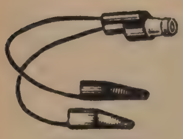
1658-S, 1658-T

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
AL-C-UHF-36	$11.45	$10.31	$ 9.73	$ 8.59
AL-C-UHF-60	12.80	11.52	10.88	9.60
UHF-C-18, -24, -36	13.75	12.38	11.69	10.31
UHF-48	14.35	12.92	12.20	10.76
UHF-C-60	14.95	13.46	12.71	11.21
BNC-B-18, -24, -30, -36	9.95	8.96	8.46	7.46
BNC-B-48	10.55	9.50	8.97	7.91
BNC-B-60	11.15	10.04	9.48	8.36
BNC-C-18, -24, -30, -36	9.95	8.96	8.46	7.46
BNC-C-48	10.55	9.50	8.97	7.91
BNC-C-60	11.15	10.04	9.48	8.36
AL-B-BNC-18, -24, -30, -36	10.95	9.86	9.31	8.21
AL-B-BNC-48	11.55	10.40	9.82	8.66
AL-B-BNC-60	12.15	10.94	10.33	9.11
3787-C-18, -24, -36	9.95	8.96	8.46	7.46
3787-C-48	10.55	9.50	8.97	7.91
3787-C-60	11.15	10.04	9.48	8.36
MG-B-BNC-18, -24, -30, -36	10.50	9.45	8.93	7.88
MG-B-BNC-48	11.10	9.99	9.44	8.33
MG-B-BNC-60	11.70	10.53	9.95	8.78

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
MG-C-BNC-18, -24, -30, -36	$10.50	$ 9.45	$ 8.93	$ 7.88
MG-C-BNC-48	11.10	9.99	9.44	8.33
MG-C-BNC-60	11.70	10.53	9.95	8.78
1367-C-18, -24, -36	12.95	11.66	11.01	9.71
1367-C-48	13.55	12.20	11.52	10.16
1367-C-60	14.15	12.74	12.03	10.61
1383-C-18, -24, -36	18.95	17.06	16.11	14.21
1383-C-48	19.55	17.60	16.62	14.66
1383-C-60	20.15	18.14	17.13	15.11
1658-S-18, -24, -36	22.75	20.48	19.34	17.06
1658-S-48	23.45	21.11	19.93	17.59
1658-S-60	24.15	21.74	20.53	18.11
1658-T-18	33.95	30.56	28.86	25.46
1658-T-24	40.95	36.86	34.81	30.71
1658-T-36	47.95	43.16	40.76	35.96
1658-T-48	54.95	49.46	46.71	41.21
1658-T-60	61.95	55.76	52.66	46.46

*Suffix indicates length in inches.

MOLDED BREAKOUTS



2630, 2631

Convert standard coaxial cables to test cables. By connecting proper breakout receptacle or plug to corresponding cable plug or receptacle, any standard coaxial cable becomes a test cable equipped with clip leads. Wire: With alligator clips, 18 AWG, strand, 65 x 36 T.C. Polyvinyl insulation, .144" O.D.; with minigator clips, 20 AWG, strand 41 x 36 T.C., polyvinyl insulation, .087" O.D. Clips and plugs are one black, and one red. Overall length, 7".

BNC RECEPTACLE TO TEST CLIPS

Model 2630 Alligator Clips; **Model 2631** Minigator Clips. Net Ea., 1-24, **$5.50**; 25-49, **$4.95**; 50 99, **$4.68**; 100-249, **$4.13**

BNC PLUG TO TEST CLIPS

Model 2885 Alligator Clips; **Model 2886** Minigator Clips. Net Ea., 1-24, **$8.50**; 25 49, **$7.65**; 50 99, **$7.23**; 100 249, **$6.38**

BNC RECEPTACLE TO STACKING BANANA PLUGS

Model 3073, Wire, 18 AWG. Net Each, 1-24, **$5.50**; 25-49, **$4.95**; 50-99, **$4.68**: 100-249, **$4.13**

UHF RECEPTACLE TO TEST CLIPS

Model 2632, Alligator Clips; Net Each, 1 24, **$12.95**; 25-49, **$11.66** · 50-99, **$11.01**; 100-249, **$9.71**

BNC PLUG TO STACKING BANANA PLUGS

Model 3957, Wire, 18 AWG. Net Each, 1-24, **$8.50**; 25-49, **$7.65**; 50-99, **$7.23**; 100 249, **$6.38**

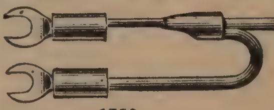
BNC RECEPTACLE TO STACKING PIN TIP PLUGS

Model 3221, Wire, 20 AWG. Two single plugs, .080" dia. Net Ea., 1-24, **$6.50**; 25-49, **$5.85**; 50-99, **$5.53**; 100 249, **$4.88**

BNC PLUG TO STACKING PIN TIP PLUGS

Model 3901, Wire 20 AWG. Two single plugs, .080" dia. Net Ea., 1-24, **$8.95**; 25-49, **$8.06**; 50-99, **$7.61**; 100-249, **$6.71**

LOW THERMAL EMF TELLURIUM COPPER JUMPERS



1756

1693

Tellurium copper, gold plated spade lugs cold-staked to multi-stranded 12 ga. copper wire to minimize thermoelectric effects. Ideal for low voltage and high precision measurements. Offer extremely low cable resistance, minimum contact resistance and thermal EMF when using copper binding posts (less than 0.01 µV/° C). Lugs are gold plated per MIL-G-45204, Type II, Class I. **Model 1756-24** (24") **or 1756-48** (48")—**Shielded lead.** For use with Kelvin Varley voltage dividers for extreme precision in low voltage measurements. Guard shield effectively reduces shunt resistance. Tellurium copper, 1-piece, machined spade lug. Thermoplastic molded to wire and spade lug. Polyethylene primary insulation. Braided shield bare copper. Black polyvinyl jacket per MIL-C-17/2A. Center conductor lug red, shield lug black. Net Each, 1-24, **$18.95**; 25-49, **$17.06**; 50-99, **$16.11**; 100-249, **$14.21**

Model 1693-12 (12"), **-18** (18"), **-24** (24"), **-36** (36"), **-48** (48") or **-60** (60")—**Spade lug jumper.** Single conductor jumper for use where guard shield is not required. Tellurium copper lug each end. Thermo-plastic molded to spade lug body. Polyvinyl insulation rated 105° C; .144" O.D. **Colors:** Specify black or red.

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
1693-12, -18, -24, -36	$7.75	$6.98	$6.59	$5.81
1993-48	8.65	7.79	7.35	6.49
1693-60	9.55	8.60	8.12	7.16

*Suffix indicates length in inches.

Pomona Patch Cords and Probes

CABLE ASSEMBLIES AND PATCH CORDS

Shielded coax, RG58C/U, polyethylene insulation. Vinyl jacket, .195″ O.D. Nom. cap., 30.8 pF/ft. Model number suffix indicates length in inches, e.g., 2241-C-**18** is 18″ long.

Model 2241-C: BNC male to single banana plugs
Model 1703-C: BNC male to GR-874
Model 1366-C: BNC male to N male
Model 2223-C: BNC male to BNC female
Model 1808-C: BNC female to BNC female
Model 1944-C: TNC male to TNC male
Model 1948-C: BNC male to TNC male
Model 2256-C: N male to N male
Model 1152-C: Alligator clips to alligator clips
Model 2239-C: Two single banana plugs both ends

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
2241-C-18, -24, -36	$13.75	$12.38	$11.69	$10.31
2241-C-48	14.35	12.92	12.20	10.76
1703-C-36	55.95	50.36	47.56	41.96
1366-C-24, -36	13.50	12.15	11.48	10.13
1366-C-48	14.10	12.69	11.99	10.58
2223-C-12, -24, -36	11.75	10.58	9.99	8.81
2223-C-48	12.35	11.12	10.50	9.26
2223-C-60	12.95	11.66	11.01	9.71
1808-C-12, -24, -36	11.50	10.35	9.78	8.63
1808-C-48	12.10	10.89	10.29	9.08
1808-C-60	12.70	11.43	10.80	9.53

RETRACTILE PATCH CORD WITH DOUBLE BANANA PLUGS

Models 3864-48, 3864-60, 3864-72—One size cord can be used in place of many various lengths. Extended, 48″; retracted, 12″. Double banana plugs on ¾″ centers. Shielded microphone cable. Center conductor 24 AWG, rubber insulated. Spiral T.C. shield with neoprene jacket, .160″ O.D.

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
1944-C-12, -24, -36	$19.95	$17.96	$16.96	$14.96
1944-C-60	21.15	19.04	17.98	15.86
1948-C-12, -24, -36	16.95	15.26	14.41	12.71
1948-C-48	17.55	15.80	14.92	13.16
1948-C-60	18.15	16.34	15.43	13.61
2256-C-24, -36	13.25	11.93	11.26	9.94
2256-C-48	13.85	12.47	11.77	10.39
2256-C-60	14.45	13.01	12.28	10.84
1152-C-12, -24, -36	11.95	10.76	10.16	8.96
1152-C-48	12.55	11.30	10.67	9.41
1152-C-60	13.15	11.84	11.18	9.86
2239-C-24, -36	14.50	13.05	12.33	10.88
2239-C-48	15.10	13.59	12.84	11.33
2239-C-60	15.70	14.13	13.35	11.78
3864-48	16.95	15.26	14.41	12.71

*Suffix indicates length in inches (extended).

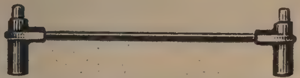
CONNECTING LEADS AND PATCH CORDS

2249

Model 2249-C BNC Male Crimp Both Ends—Connectors are tarnish resistant crimp BNC males equivalent to UG88E/U. Cable, RG58C/U shielded coax.; 50 ohm imp.; 30.8 pF/ft.

3220

Model 3220 Minigator Clip to Stacking Banana Plug—Cadmium-plated steel clip with vinyl insulator; 1-piece nickel-plated copper spring; thermoplastic molded to plug body and wire (20 AWG, 41 x 36 T.C. strand, .087″ O.D. polyvinyl insul.). **Colors:** Specify red or black.


3201

Model 3201 Push-On Stacking BNC Male Both Ends—Stacking patch cord for 'scopes, etc. connecting center conductors of BNC jacks with common chassis. Wire 18 AWG, stranded 65 x 36 polyvinyl insulation. Contacts heat-treated beryllium copper, gold flashed. Temp., +53° C max. **Colors:** Red or black.

3202

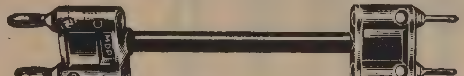
Model 3202 Push-On Stacking BNC Male to Stacking Banana Plug—Wire and one end same as Model 3201; other end is stacking banana plug. **Colors:** Red or black.

1661-C

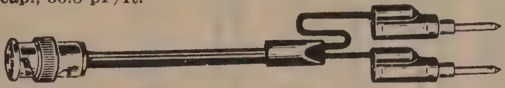
Model 1661-C BNC Male UG-88E/U, One End Only—Shielded coax RG-58C/U with plug on one end only.
Model 1661-E BNC Male UG-260B/U, One End Only—Shielded coax. RG-59B/U with plug on one end only.

3137

Model 3137 Push-On UHF Male Both Ends—With RG-58C/U shielded coaxial cable. Ideal for test interconnections without screwing on or off shell.


2288

Model 2288 Double Banana Plug to Double Pin Tip Plug—Both plugs ¾″ centers. Coax RG-58C/U shielded cable with polyethylene insulation, vinyl jacket; .195″ O.D., 50 ohm imp.; nom. cap., 30.8 pF/ft.


2882

Model 2882 BNC Male to Stack-Up Pin Tips—Male BNC UG-88E/U and single gold plated stack-up pin tip plugs .080″ O.D. RG-58C/U shielded coaxial cable polyethylene insulated, with vinyl jacket; 50 ohm imp.; nom. cap., 30.8 pF/ft.

Pomona Model*	Net Each, Lots of			
	1-24	25-49	50-99	100-249
1661-C-12, -24, -36	$ 6.95	$ 6.26	$ 5.91	$ 5.21
1661-C-48	7.55	6.80	6.42	5.66
1661-C-60	8.15	7.34	6.93	6.11
1661-E-12, -24, -36	7.25	6.53	6.16	5.44
1661-E-48	7.85	7.07	6.67	5.89
1661-E-60	8.45	7.61	7.18	6.34
2249-C-12, -24, -36	9.35	8.42	7.95	7.01
2249-C-48	9.95	8.96	8.46	7.46
2249-C-60	10.55	9.50	8.97	7.91
2288-C-36	9.25	8.33	7.86	6.94
2288-C-48	9.85	8.87	8.37	7.39
2288-C-60	10.45	9.41	8.88	7.84
2882-C-18, -24, -36	10.50	9.45	8.93	7.88
2882-C-48	11.10	9.99	9.44	8.33
2882-C-60	11.70	10.53	9.95	8.78
3137-C-36	27.50	24.75	23.38	20.63
3199-C-12, -24, -36	10.50	9.45	8.93	7.88
3199-C-48	11.10	9.99	9.44	8.33
3199-C-60	11.70	10.53	9.95	8.78
3201-4, -12, -36†	4.75	4.28	4.04	3.56
3201-60†	5.15	4.64	4.38	3.86
3202-18, -36†	4.25	3.83	3.61	3.19
3202-60†	4.65	4.19	3.95	3.49
3220-4, -8, -12, -24, -36†	2.60	2.34	2.21	1.95
3220-48†	2.80	2.52	2.38	2.10
3220-60†	3.00	2.70	2.55	2.25

*Suffix indicates length in inches. †Specify red or black.

TEST PROBES

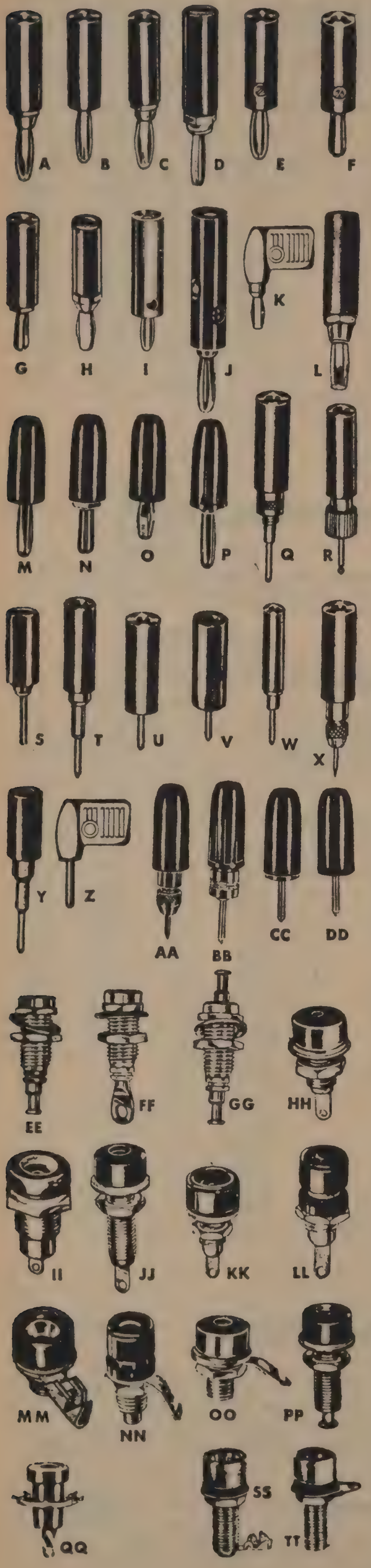
Model 4410-48-0 (Black), 4410-48-2 (Red)—Miniature molded nylon handle with finger guard and replaceable needle tip. Non-stacking banana plug molded to 48″ of #20 AWG wire. Net Each, 1–24, **$5.50**; 25-49, **$4.95**; 50-99, **$4.68**; 100-249, **$4.13**

Model 4924-48-0 (Black), 4924-48-2 (Red)—Medium size molded nylon handle with triangular finger guard. Banana plug molded to 48″ of #18 AWG wire. Net Each, 1-24, **$4.75**; 25-49, **$4.28**; 50-99, **$4.04**; 100-249, **$3.56**

Model 4853-36 (36″), 4853-48 (48″)—Insulated hand probe with finger guard and .080″ dai. x ½″ lg. pin tip. Banana plug molded onto other end of 48″ length of #18 AWG (65 x 36 T.C. stranded) wire. Extra-flexible polyvinyl insulation .144″ O.D. Net Each, 1-24, **$4.95**; 25-49, **$4.46**; 50-99, **$4.21**; 100-249, **$3.71** Specify red or black.

Model 4851-48-0 (Black), 4851-48-2 (Red)—Same as above, except stacking banana plug. Net Each, 1-24, **$5.95**; 25-49, **$5.36**; 50-99, **$5.06**; 100-249, **$4.46**

H. H. Smith Jacks and Plugs



INSULATED BANANA PLUGS*

H. H. S. No.	Fig.	Description	Net Each
212	A	Solderless with nickel-plated phosphor bronze spring; wire may also be soldered to brass stud or directly into plug; 1" handle	$0.96
232	A	Same as above, but with silver-plated spring	1.08
242	A	Same, but with nickel-plated beryllium copper spring	1.10
262	A	Same, but with silver-plated beryllium copper spring	1.24
211	B	Solderless with nickel-plated phosphor bronze spring; 1" handle	.80
261	B	Same, but with silver-plated spring	.92
271	B	Same, but with nickel-plated beryllium copper spring	.94
281	B	Same, but with silver-plated beryllium copper spring	1.05
295	C	Screw-term. solderless; nickel-plated phos. bronze spring; 1" handle	1.10
296	C	Same, but with silver-plated spring	1.24
297	C	Same, but with nickel-plated beryllium copper spring	1.26
298	C	Same, but with silver-plated beryllium copper spring	1.37
236	D	Same, but cross-drilled hole in spacer for solderless connection	1.69
204	E	Set-screw solderless; nickel-plated phosphor bronze spring; 1" handle	.80
254	E	Same, but nickel-plated beryllium copper spring	.94
213	F	Split type with side screw; cross-slotted for spring tension	.73
253	G	Soldered or solderless with internal stud; cross-slotted; 1" handle♯	.85
291	H	Stud-soldered midget plug with ⅝" machined butyrate handle; 1³⁄₃₂" plug with nickel-plated phos. bronze spring; specify red or black	.80
292	H	Same, but silver-plated spring	.92
293	H	Same, but nickel-plated beryllium copper spring	.94
294	H	Same, but silver-plated beryllium copper spring	1.05
214	I	Adapts tip plug to banana plug; molded butyrate handle with jack for tip plug; nickel-plated phosphor bronze spring; red or black	.82
1511	J	Solderless banana plug; banana plugs in top and side of machined butyrate handle for unlimited, multiple circuits; phosphor bronze nickel-plated spring; specify red, black, yellow or green	1.83
1512	J	Same, but beryllium copper spring	2.06
255	K	Meter plug with 4-leaved nickel-plated phosphor bronze spring; specify red or black	1.26
285	L	Giant type with machined phenolic plastic handle, deep solder well; 6-leaved phosphor bronze nickel-plated spring; specify red or black	3.88
476	M	Molded nylon plug; soldered or solderless; phosphor bronze nickel-plated spring; specify color†	.83
477	M	Same, but silver-plated phosphor bronze spring; specify color†	.94
478	M	Same, but nickel-plated beryllium copper spring; specify color†	.96
479	M	Same, but silver-plated beryllium copper spring; specify color†	1.08
494	N	Solderless split-type plug with molded nylon handle; specify color†	.69
426	O	Midget version of No. 476; specify color†	.76
427	O	Midget version of No. 477; specify color†	.87
428	O	Midget version of No. 478; specify color†	.89
429	O	Midget version of No. 479; specify color†	1.01
455	P	Solderless wrap-around version of No. 476; specify color†	.83
456	P	Solderless wrap-around version of No. 477; specify color†	.94
457	P	Solderless wrap-around version of No. 478; specify color†	.96
458	P	Solderless wrap-around version of No. 479; specify color†	1.08

INSULATED TIP PLUGS*

200	Q	Solderless threaded type; 1" handle; 2⅛" long	$0.69
201	Q	Same, but slightly smaller; 1" handle; 1¹⁹⁄₃₂" long	.69
237	S	Easy-solder hollow tip; ⅝" molded butyrate handle♯	.26
229	T	Heavy duty, easy solder connection; 1" handle, 2⅛" long♯	.69
203	U	Short tip plug inserts flush to handle; 1" handle; 1½" long	.62
283	V	Same as above, but solderless connection	.60
270	W	Subminiature tip with 1" fiber handle; specify red or black	.80
216	X	Phono needle tip with removable chuck; 1" handle; 1⅞" long♯	.96
215	Y	Std. tip plug with jack for banana plug; ¾" molded butyrate handle; specify red or black	.69
235	Z	Meter tip plug molded in two halves; specify red or black	.92
493	AA	Removable chuck type with molded nylon handle and phono needle; specify color†	.96
490	BB	Solderless type with molded nylon handle; specify color†	.69
492	CC	Short version of above without knurled collar; specify color†	.60
491	DD	Short tip plug; inserts flush to nylon handle; specify color†	.62

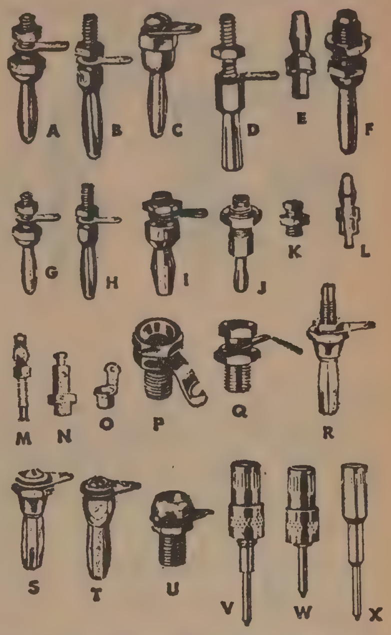
INSULATED JACKS‡

1501	EE	Nylon tip jack with metal shell; wrap-around type; specify color†	$1.51
1502	FF	Same, but spade terminal type; specify color†	1.78
1503	GG	Same, but feed-thru type; specify color†	.92
1505	EE	Same as 1501 but all-nylon construction; specify color†	.69
1506	FF	Spade terminal version of 1505; specify color†	.92
1507	GG	Feed-thru version of 1505; specify color†	.80
202	HH	Molded thermosetting plastic head; phone tip; mounted in ⁵⁄₁₆" hole	.67
240	II	Molded nylon tip jack rated 5,000 VAC, 60 Hz; specify color§	.80
206	JJ	Molded thermosetting plastic head combo jack takes standard phone or banana plugs	.85
282	KK	Thermosetting plastic head meter type; phone tip; specify color§	.96
241	LL	Molded nylon head; insulated from panel; phone tip; specify color§	1.14
219	MM	Molded thermosetting plastic head banana jack; recessed body♯	.80
221	NN	Nylon head and washer; insulated from panel; for standard banana plugs; specify color§	1.14
205	OO	Molded thermosetting plastic head banana jack	.53
256	PP	Molded thermosetting plastic head banana jack; turret terminal	.73
279	QQ	Phone tip jack with dished lockwasher "speedi-mount"; molded thermosetting plastic body; ¹³⁄₃₂" dia. head	.31
286	SS	Giant banana jack; fits ½" hole; panel to ¾"; tinned copper lug; machined butyrate head; specify red or black	2.51
287	TT	Same as 286 except brass tinned lug	2.51

*Molded thermosetting plastic handle unless otherwise noted. Standard colors: red, black, yellow, green, blue or white except as otherwise noted. †For colors add suffix: -101, white; -102, red; -103, black; -104, green; -105, blue; -106, orange; -107, yellow; -108, brown; -112, purple; -113, gray. ‡Standard colors: Red, black, yellow, green, blue or white except as otherwise noted. §Specify red, black, yellow, green or blue. ♯Red or black only.

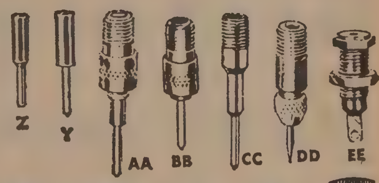
H. H. Smith JACKS, PLUGS AND BINDING POSTS

NON-INSULATED BANANA PLUGS AND JACKS



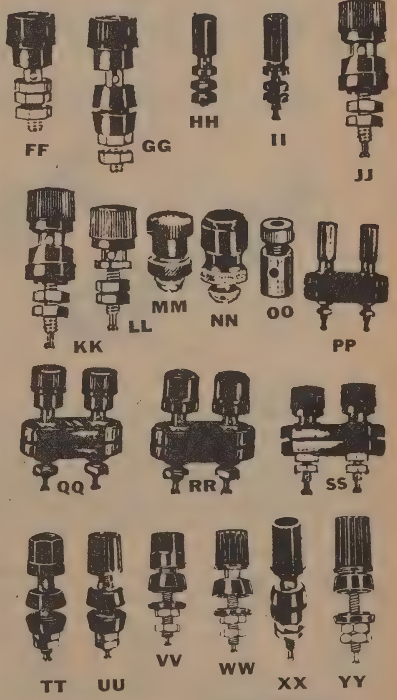
H. H. S. No.	Fig.	Description	Net Each*
102	A	⅜″ threaded stud; hex brass body; nickel-plated phos. bronze spring	$0.89
103	B	½″ threaded stud; hex brass body; nickel-plated phos. bronze spring	.85
100	C	Screw-on type; hex brass body; nickel-plated phos. bronze spring	.89
190	C	Same, but with beryllium copper spring	1.03
104	D	½″ threaded stud; hex brass body; split type banana plug	.60
121	E	Midget rivet type; silver-pl. brass body; phos. bronze silvered spring	.62
145	F	Soldered or solderless type with hex body; phos. bronze spring	.89
135	F	Same, but beryllium copper spring	1.03
431	G	6-32 x ⅜″ stud type; hex body; phos. bronze spring nickel-plated	.89
432	G	Same, but 6-32 x ½″ stud; 1 5/16″ h.	.96
433	G	Same, but 6-32 x ¾″ stud; 1 9/16″ h.	1.03
434	G	Same, but 8-32 x ⅜″ stud; 1 3/16″ h.	.89
435	G	Same, but 8-32 x ½″ stud; 1 5/16″ h.	.96
436	G	Same, but 8-32 x ¾″ stud; 1 9/16″ h.	1.03
401	H	6-32 x ⅜″ stud type; hex body; phos. bronze spring nickel-plated	.78
403	H	Same, but 6-32 x ½″ stud; 1 9/32″ h.	.85
404	H	Same, but 6-32 x ¾″ stud; 1 17/32″ h.	.92
405	H	Same, but 8-32 x ⅜″ stud; 1 5/32″ h.	.78
406	H	Same, but 8-32 x ½″ stud; 1 9/32″ h.	.85
407	H	Same, but 8-32 x ¾″ stud; 1 17/32″ h.	.92
460	I	Midget 4-40 x ⅜″ stud; nickel-plated phos. bronze spring; 15/16″ h.	.73
461	I	Same, but 4-40 x ½″ stud; 1 1/16″ h.	.80
462	I	Same, but 6-32 x ⅜″ stud; 15/16″ h.	.73
463	I	Same, but 6-32 x ½″ stud; 1 1/16″ h.	.80
111	J	Midget cross-slotted body type; 10-32 x 21/64″ stud; 29/32″ h	.44
191	L	Submin. rivet type plug; silver-plated beryl. copper spring; 37/64″ h.	.57
192	M	Submin. 2-56 stud type plug similar to No. 191	.80
193	N	Submin. jack rivets direct to chassis or PC board	.44
194	O	Submin. jack rivets direct to chassis or PC (Package of 100)	4.34
101	P	Hex body jack with recessed head; fits ¼″ hole; panels to 5/16″ thick	.46
109	Q	Std. hex head banana jack fits ¼″ hole; panels to ⅜″ thick	.46
185	R	Giant plug with deep solder well; 6-leaved phos. bronze spring	2.40
186	S	Same, but screw fit instead of stud	2.17
188	T	Same as No. 186 but slimmer base	1.83
187	U	Giant banana jack fits ⅜″ hole; panels to ½″ thick	1.44

NON-INSULATED TIP PLUGS AND JACKS



105	V	Solderless with knurled collar force fit; 1 29/64″ h.	$0.51
106	W	Smaller version of above; 1 3/16″ h.	.51
156	X	Heavy-duty force fit type; accepts standard banana plugs	.51
108	Y	Standard solder type; 1″ long (Package of 100)	.14
123	Y	Large I.D. solder type; 1″ long (Package of 100)	.32
158	Z	Drawn (all-hollow) solder type; 15/16″ long (Package of 100)	.07
124	AA	Threaded solderless type; knurled collar; will fit plastic handle	.51
127	BB	Smaller version of above; 1 3/16″ h.	.51
125	CC	Heavy duty threaded type; extra large solder well; 1⅜″ h.	.51
128	DD	Needle tip with removable chuck; 1 5/32″ h.	.73
107	EE	Phone tip jack with hex nut; fits ¼″ hole; panels to ⅜″ thick	.73
101	EE	Banana jack with hex nut and lug; fits ¼″ hole; panels to 5/16″ thick	.46

BINDING POSTS



220	FF	Grounding type, red or black plastic, captive head; 8-32 thd.	$0.83
230	FF	Same, but 6-32 threaded stud	.83
260	GG	All insulated version of No. 220; red or black plastic, captive head	1.33
259	GG	Same, but 6-32 threaded stud	1.33
137	HH	Metal post has captive hex nickel-plated brass head	1.58
208	II	Same as No. 137 but with wrap-around terminal	1.58
377	JJ	Molded nylon grd. type with nickel-plated brass insert; red or black	1.44
378	KK	Same, but with Bakelite washer to insulate from chassis; red or black	1.44
379	LL	Molded nylon grounding type; nickel-plated brass insert; red or black	1.33
265	MM	Molded plastic post; brass threaded insert; specify red or black	1.10
266	NN	Molded plastic post; brass threaded insert; specify red or black	.73
136	OO	Nickel-plated brass post for phone tips or banana plugs	.85
110	MM	Nickel-plated brass post with screw and lockwasher	.85
209	PP	Dual assembly; metal heads; black styrene cross-slotted	3.24
224BB	QQ	Dual assembly; black plastic heads; styrene washer cross-slotted	2.28
224RR	QQ	Same, both heads red	2.28
224RB	QQ	Same, one red and one black head	2.28
269BB	RR	Same as No. 263, but heads are molded nylon; both heads black	2.97
269RR	RR	Same, both heads red	2.97
269RB	RR	Same, one red and one black head	2.97
284BB	SS	Same as No. 263, but heads are molded nylon; both heads black	2.28
284RR	SS	Same, both heads red	2.28
284RB	SS	Same, one red and one black head	2.28

***Lots of 1–499, Net; 500–999, —16⅔%.**

LEXAN BINDING POSTS

Supplied in six colors except where specified. Red, **-102**; black, **-103**; yellow, **-107**; green, **-104**; white, **-101**; blue, **-105**.

MOUNT IN ½″ DIAM. HOLE

257	TT	Hex head, gold plated	$2.97
459	UU	Fluted head, gold plated	2.97
267	TT	Hex head, gold plated, MIL Spec. PB01FA03, red only	2.97
267	TT	Hex head, gold plated, MIL Spec. PB01FA04, black only	2.97
495	UU	Fluted head, gold plated, MIL Spec. PB01FA03, red only	2.97
495	UU	Fluted head, gold plated, MIL Spec. PB01FA04, black only	2.97
1257	VV	Hex head, gold plated, Lexan back-up washer	2.58
1259	WW	Fluted head, gold plated, flat Lexan back-up washer	2.58
899	TT	Hex head, bright tin plate	1.94
799	UU	Fluted head, bright tin plate	1.94
898	VV	Hex head, bright tin plate, flat Lexan back-up washer	1.71
897	WW	Same, fluted head	1.71

MOUNT IN ⅜″ DIAM. HOLE

1517	XX	Gold plated	$2.97
1514	XX	Gold plated, MIL Spec. PB01FA01, red only	2.97
1514	XX	Gold plated, MIL Spec. PB01FA02, black only	2.97
1277	YY	Gold plated, flat Lexan back-up washer	2.58
1275	XX	Bright tin plate per MIL-T-10727	1.94
1276	YY	Bright tin plate per MIL-T-10727, flat Lexan back-up washer	1.71

Smith
MANUFACTURERS of ELECTRONIC COMPONENTS

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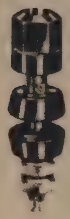
FOR PURCHASING AGENTS AND ENGINEERS

Gives full specifications, parts data and dimensional drawings on all H. H. Smith components. Send for your copy today.

Superior Electric Connectors

5-WAY® BINDING POSTS



BP30

BP31

BP21

BP30GP

Design permits connection by (1) standard banana plug; (2) clip-lead to shaft; (3) wire looped around the shaft and clamped; (4) wire permanently clamped through center hole; (5) clamped spade lug connection. Binding posts can be mounted and securely locked in any panel from 1⁄16" to 1⁄4" thick. Adapter spacers are available for mounting in thinner panels. Current carrying parts of hex nut, fluted nut, miniature and fused types are of gold plated brass. All metal grounding type binding post is made of finely-machined brass nickel-plated and polished. When ordering hex nut, fluted nut or miniature types, specify color by suffix: •**B**—black; **Y**—yellow; •**R**—red; **BL**—blue; **GN**—green; or •**WT**—white.

Superior Type BP30 Hex Nut—Rated 30 amps, 1000 V working. Durable, nylon plastic insulating parts meet MIL-M-20693A, Type IV. Net Each **$1.13**

Superior Type BP30-10 Hex Nut—Same as BP30, except has larger No. 10-32 stud. Net Each **$1.23**

Superior Type BP31 Fluted Nut—Insulating parts of Lexan polycarbonate resin have low loss and power factor; high voltage insulation and impact strength. Rated 30 amps, 1000 V working. Net Each **$1.13**

Superior Type BP31-10 Fluted Nut—Same as BP31, except has larger No. 10-32 stud. Net Each **$1.23**

Superior Type BP21 Miniature—Smaller in size. Ideal for use on electrical and electronic apparatus where space is limited. Plastic parts meet MIL-M-20693A, Type IV. Rated 15 amps, 1000 V working. Available in fluted nut design only.
Net Each **$1.13**

Superior Type BP30GP10 Grounding—Designed for making rapid connections to ground. Functional design complements other hex nut Superior 5-Way® Binding Posts. Complete with washer and twin 10-32 hex nut. All metal construction.
Net Each **$1.87**

SUPERCON® ELECTRICAL CONNECTORS

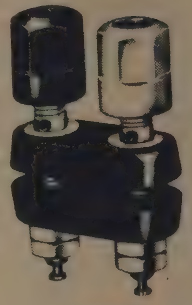
These socket and pin types of plugs and receptacles incorporate many new features. Wiring connections can be soldered or solderless. Two cable fastening screws permit accommodation of a wide range of cable sizes for many needs. Current carrying parts are of gold plated brass for stable electrical contact and resistance to corrosion. Molded plastic parts offer high dielectric strength, durability, color stability, self-locking action, resistance to heat and corrosion. Plug grips of two-piece threaded construction for quick assembly. Receptacles have color-matching caps and bodies for circuit identification in front and back of panel. Plug and receptacles available in red, white, blue, yellow, black or green (see footnote below). Available in 25, 50, 100 and 250 amp ratings.

SOCKET RECEPTACLES			SOCKET PLUGS		
Superior Type*	**Rated Amps**	**Net Each**	**Superior Type***	**Rated Amps**	**Net Each**
RS25G	25	$ 7.35	**PS25G**	25	$ 7.35
RS50G	50	9.30	**PS50G**	50	9.30
RS100G	100	12.25	**PS100G**	100	12.25
RS250G	250	20.05	**PS250G**	250	20.05

PIN RECEPTACLES			PIN PLUGS		
Superior Type*	**Rated Amps**	**Net Each**	**Superior Type***	**Rated Amps**	**Net Each**
RP25G	25	$ 7.35	**PP25G**	25	$ 7.35
RP50G	50	9.30	**PP50G**	50	9.30
RP100G	100	12.25	**PP100G**	100	12.25
RP250G	250	20.05	**PP250G**	250	20.05

*Add suffix to indicate color: •**B**, black; **Y**, yellow; •**R**, red; **BL**, blue; **GN**, green; **WT**, white (RS25G**B**, black; RP25G**GN**, green).

DOUBLE ASSEMBLY 5-WAY® BINDING POSTS



BP30-2BR

For use on instrument and equipment panels requiring binding posts that mount on 3⁄4" centers. Rugged, self-contained assemblies; more accurate, faster and simpler usage than two individual binding posts. Fixed-panel-insulator of low-loss Lexan* plastic molded over brass cores frozen to shafts. Shoulders are raised for firm seating in mounting holes. Sliding panel mounting insulator of Lexan* plastic molded over brass cores; seats securely in mounting holes. All brass parts are gold plated. Rated for current carrying capacity of 30 amps, 1000 V working. Mount in any panel 1⁄16"—1⁄4" thk. High impact strength from −100° F to +275° F; ductility rather than brittleness under impact. Available in color code combination of black and red.

Superior Type BP30-2BR—
Net Each **$3.35**

Superior Type BP30-2BR10—Same as BP30-2BR, except has larger No. 10-32 studs.
Net Each **$3.65**

Superior Type BP-21-2BR (Miniature Fluted Nut)—
Net Each **$3.20**

*Registered GE trademark.

5-WAY® TEST PROBE

For test connections to printed circuit boards and other electronic components. Makes connections by plugging into matching terminal No. 207146-001-JB, by hooking onto component leads or IC package pins or by locking tip in extended position for touch contact. Also plugs into any terminal with 0.08" (2.03mm) dia. receptacle. Conductor tip is beryllium copper. Insulating parts are durable nylon plastic. When ordering, specify color by suffix: **B**—black or **R**—red.

Superior Type P5 Test Probe—Net Each **$3.60**

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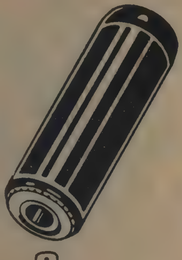
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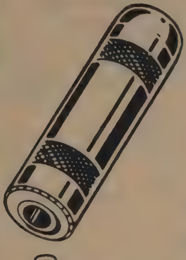
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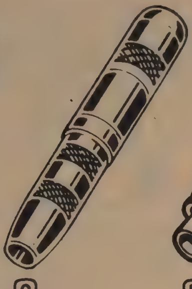
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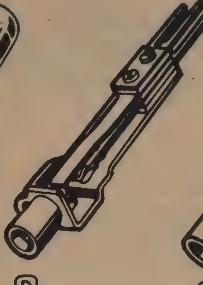
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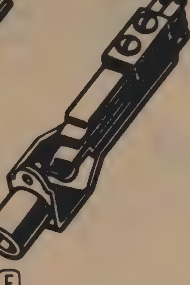
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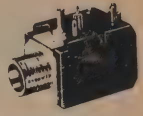
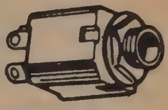

Right Angle Hi-D Jax


Hi-D Jax®

"EXTENSION JAX" CABLE EXTENSION JACKS

Standard ¼", 2- and 3-cond. extension phone jacks with solde lugs or screw terminals. Size, $1\frac{1}{16}$" O.D. x $2\frac{5}{32}$" long, except Nos 121 and 131, ½" O.D. x 2½" long. Black handles are durable plastic; shielded handles are bright nickel-plated brass.

Part No.	Fig.	Cond.	Term.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
WITH BLACK PLASTIC HANDLE								
80	A	2	Screw	$2.40	$1.80	$1.65	$1.35	$1.20
88	A	2	Solder	2.40	1.80	1.65	1.35	1.20
830	A	3	Screw	3.32	2.49	2.28	1.87	1.66
S-830	A	3	Screw	3.92	2.94	2.70	2.21	1.96
838	A	3	Solder	2.68	2.01	1.84	1.51	1.34
WITH SHIELDED HANDLE								
120	B	2	Screw	$3.04	$2.28	$2.09	$1.71	$1.52
121	C	2	Solder	3.12	2.34	2.15	1.76	1.56
128	B	2	Solder	2.68	2.01	1.84	1.51	1.34
131	C	3	Solder	3.92	2.94	2.70	2.21	1.96
1230	B	3	Screw	3.80	2.85	2.61	2.14	1.90
1238	B	3	Screw	3.56	2.67	2.45	2.00	1.78

"MT-JAX" MILITARY TELEPHONE JACKS

Long frame, telephone switchboard jacks designed for high quality communication and military equipment. Springs are of a special nickel silver alloy with welded crossbar palladium contacts. "A" frame design, Fig. D, has side mounting ear; "C" frame design, Fig. E has top mtg. ear. Jacks have solder lugs, except **W** prefix indicates wire-wrap lugs.

Part No.*	Fig.	Conds.	Schematic No.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
MT-331	D	2	I	$2.12	$1.59	$1.46	$1.19	$1.06
MT-332A	D	2	III	2.52	1.89	1.73	1.42	1.26
MT-332B	D	3	IV	2.52	1.89	1.73	1.42	1.26
WMT-332B	D	3	IV	2.76	2.07	1.90	1.55	1.38
MT-332C	D	2	XVIII	3.08	2.31	2.12	1.73	1.54
MT-334B	D	3	XII	3.24	2.43	2.23	1.82	1.62
WMT-334B	D	3	XII	3.36	2.52	2.31	1.89	1.68
MT-336C	D	3	XXII	4.32	3.24	2.97	2.43	2.16
MT-342B	D	3	IV	2.92	2.19	2.01	1.64	1.46

*For "C" frame type (Fig. E), add prefix **"C"** to part number.

"TWIN-JAX" MILITARY TWIN TELEPHONE JACKS

Similar in design to "MT-Jax", except frame is double width with two mounting ears on 1⅜" centers; dual bushings are ⅝" on centers. Has two 3-cond. jacks interconnected; mates with No. 482 plug.

Part No.	Terms.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
MT-389	Solder	$8.32	$6.24	$5.72	$4.68	$4.16
WMT-389	Wire-wrap	8.68	6.51	5.97	4.88	4.34

JACK COVER

Handy, rugged, spring loaded phone jack cover. Covers jack opening when plug is removed. Protects against dust and moisture. Used with standard ⅜"-32 threaded bushing type phone jacks.

Part No.	Color	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
510	Olive drab	$3.24	$2.43	$2.23	$1.82	$1.62
512	Nickel	3.12	2.34	2.15	1.76	1.56
515	Black	3.24	2.43	2.23	1.82	1.62
520	Navy gray	3.24	2.43	2.23	1.82	1.62

Hi-D Jax ENCLOSED PHONE JACKS

Small compact phone jacks mate with standard ¼" phone plugs. Molded box body protects silver-plated, nickel silver springs. Low contact resistance and electrical leakage with little capacity between springs. Mount on ⅝" centers in ⅜" dia. hole in panels up to $\frac{5}{32}$" thick. Part Nos. with **"N"** prefix have threaded nylon bushing to insulate jack from panel. Part Nos. with **"M"** prefix are designed and adjusted to mate with telephone and MIL-STD plugs. Tip and ring (3-cond.) springs are gold plated. Contacts are welded crossbar palladium for stable, low-resistance connections. No. 114B stereo Hi-D jack switches out speakers when connecting stereo headphones. Dual NC switch contacts open both circuits independently when 3-cond. plug is inserted.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
TWO-CONDUCTOR TYPES							
111	I	250	$0.92	$0.69	$0.633	$0.518	$0.46
111PC	I	250	.96	.72	.66	.54	.48
N-111	I	250	1.08	.81	.743	.608	.54
NL-111	I	250	1.16	.87	.798	.653	.58
112A	III	250	.96	.72	.66	.54	.48
112APC	III	250	1.04	.78	.715	.585	.52
L-112A	III	250	1.16	.87	.798	.653	.58
N-112A	III	250	1.16	.87	.798	.653	.58
NL-112A	III	250	1.36	1.02	.935	.765	.68
113	V	250	1.60	1.20	1.10	.90	.80
113D	VI	250	1.60	1.20	1.10	.90	.80
113E	IX	250	1.60	1.20	1.10	.90	.80
THREE-CONDUCTOR TYPES							
112B	IV	267	$1.00	$0.75	$0.688	$0.563	$0.50
L-112B	IV	267	1.24	.93	.853	.698	.62
M-112B	IV	482	1.60	1.20	1.10	.90	.80
113B	VII	267	1.28	.96	.88	.72	.64
114B	XII	267	1.40	1.05	.963	.788	.70
L-114B	XII	267	1.60	1.20	1.10	.90	.80
M-114B	XII	267	2.16	1.62	1.49	1.22	1.08
N-114B	XII	267	1.64	1.23	1.13	.923	.82

RIGHT ANGLE Hi-D Jax ENCLOSED PHONE JACKS

Compact, fully enclosed phone jacks have right-angle design which permits space saving mounting on PC boards in a wide variety of commercial applications. Jack bushings mounts through ⅜" diam. hole in panels or chassis up to .141" thick; terminals mount in PC boards up to ⅛" thick. Supplied with washer and locknut.

Part No.	No. Conds.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249
RN-111PC	2	I	250	$1.00	$0.75	$0.688	$0.563
RN-112APC	2	III	250	1.08	.81	.743	.608
RN-112BPC	3	LV	267	1.08	.81	.743	.608
RN-114BPC	3	XII	267	1.40	1.05	.963	.788

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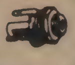
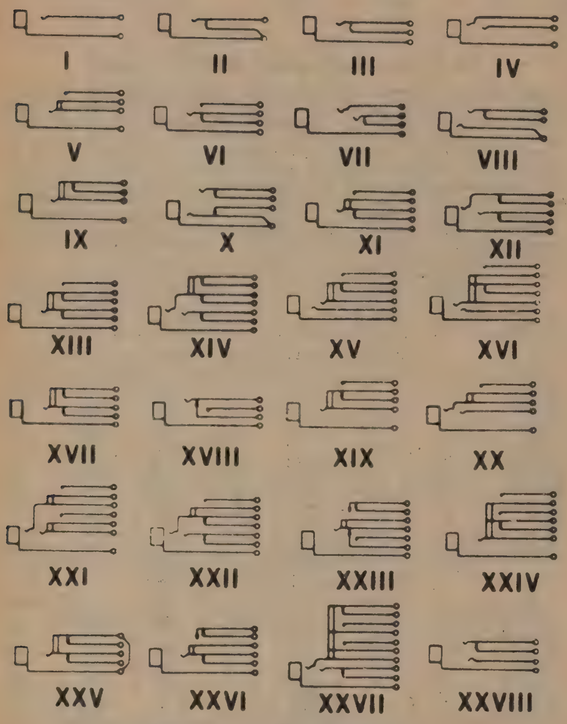
Tini-Jax®

"TINI-EXTENSION" JAX


Micro-Jax®

"TINI-D JAX"



Schematics do not necessarily indicate relative solder lug positions.

Littel-Jax® PHONE JACKS

Economical phone jacks with notched insulating washers to mechanically interlock springs and solder lugs. "V" bend in spring tip holds mating plug firmly. Mount in ⅜" dia. hole in panels up to ³⁄₃₂" thick, except L-11 and L-12A mount in panels up to ¼" thick. Nos. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve. No. 14B stereo Littel-Jax switches out speakers when connecting stereo headphones. Dual NC switch contacts open both stereo circuits independently when 3-cond. plug is inserted.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
			TWO-CONDUCTOR TYPES				
11	I	250	$0.92	$0.69	$0.633	$0.518	$0.46
C-11*	I	440	1.32	.99	.908	.743	.66
L-11	I	250	1.00	.75	.688	.563	.50
S-11	I	S-250	.96	.72	.66	.54	.48
12A	III	250	.96	.72	.66	.54	.48
C-12A*	III	440	1.68	1.26	1.16	.945	.84
L-12A	III	250	1.08	.81	.743	.608	.54
PC-12A	III	250	1.08	.81	.743	.608	.54
13	V	250	1.80	1.35	1.24	1.01	.90
13A	VI	250	1.80	1.35	1.24	1.01	.90
13E	IX	250	1.80	1.35	1.24	1.01	.90
			THREE-CONDUCTOR TYPES				
12B	IV	267	$1.08	$0.81	$0.743	$0.608	$0.54
C-12B*	IV	480	1.64	1.23	1.13	.923	.82
L-12B	IV	267	1.48	1.11	1.02	.833	.74
S-12B	IV	480	1.48	1.11	1.02	.833	.74
13B	VIII	267	1.60	1.20	1.10	.90	.80
S-13B	VII	480	2.04	1.53	1.40	1.15	1.02
14B	XII	267	2.12	1.59	1.46	1.19	1.06

*Per MIL-J-641.

Tini-Jax® MINIATURE PHONE JACKS

Miniature 2-cond. phone jacks approximately ⅓ the size of Littel-Jax; otherwise similar in construction. Mount in ¼" dia. hole in panels up to ⅛" thick. No. 43A has a unique spring design that requires a pear shaped tip, such as Tini-Plug® No. 750.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
41	I	750	$0.76	$0.57	$0.523	$0.428	$0.38
42A	III	750	.88	.66	.605	.495	.44
43A	VI	750	1.28	.96	.88	.72	.64

"TINI-EXTENSION JAX"

An extension or cable jack to mate with Tini-Plug. Two conductor. Metal housing for ruggedness and electrical shielding. Solder lug terminals.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
125	....	750	$2.48	$1.86	$1.71	$1.40	$1.24

Micro-Jax SUBMINIATURE PHONE JACK

Precision jack for compact equipment. Only 1/25 the size of standard phone jacks. Two-cond., single closed circuit. Silver plated nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Mounts in .190" dia. hole in panels up to ³⁄₃₂" thick.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
TR-2A	III	850, 880	$1.08	$0.81	$0.743	$0.608	$0.54

"TINI-D JAX" MINIATURE ENCLOSED PHONE JACKS

Small, completely enclosed, molded phone jack mates with Tini-Plug No. 750, etc. Phenolic housing protects the bifurcated beryllium copper springs. Has threaded bushing for mounting on ⅜" centers in ¼" dia. hole in panels up to ⅛" thick. Depth behind panel, ⁷⁄₁₆". Terminals snap into PC boards.

Part No.	Schematic No.	Typ. Mating Plug	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
142A	III	750	$1.12	$0.84	$0.77	$0.63	$0.56

"THICK-PANEL JAX"

Phone jacks with long bushings. Mount in ¹⁵⁄₃₂" dia. hole in panels up to 1¼" thick. Solder lug terminals. Ideal for use with microphones—extra shielding reduces audio hum. Mate with standard ¼" phone plugs. Nickel-plated brass.

Part No.	Description	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
151	2 conductor	$2.84	$2.13	$1.95	$1.60	$1.42
152B	3 conductor	3.12	2.34	2.15	1.76	1.56

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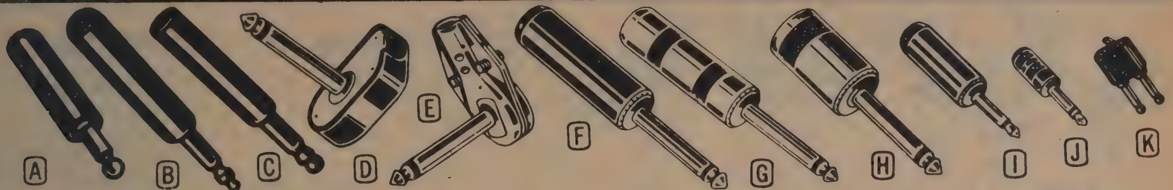


MIL-TYPE Littel-Plug® PHONE PLUGS

Littel-Plug phone plugs are made in accordance with MIL-P-642(A) specifications. One-piece tip rod and one-piece sleeve and plug body provide internal interlock to prevent shifting of parts. Handles are red or black plastic. All plugs have screw terminals.

Part No.	Fig.	Cond.	MIL Type	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
420#	....	2	PJ-047B	$3.56	$2.67	$2.45	$2.00	$1.78
425*	....	2	PJ-047R	3.32	2.49	2.28	1.87	1.66
430*	A	2	PJ-054B	3.56	2.67	2.45	2.00	1.78
440*	....	2	PJ-055B	3.12	2.34	2.15	1.76	1.56
445	....	2	PJ-055R	3.12	2.34	2.15	1.76	1.56
470	....	2	PJ-055M	3.80	2.85	2.61	2.14	1.90
480*	B	3	PJ-068	6.24	4.68	4.29	3.51	3.12
482#	C	3	PJ-051R	5.48	4.11	3.77	3.08	2.74
483*	C	3	PJ-051B	5.48	4.11	3.77	3.08	2.74
820▲	....	2	JJ-026	5.88	4.41	4.04	3.31	2.94

*Red Handle. #Black Handle. ▲Extension jack with black handle. Typical mating plug, No. 430.

"FLAT-PLUG" PHONE PLUGS

These ¼" phone plugs feature flat, space-saving handles. Ideal for applications where conventional plugs would protrude too far. No. 220 has adapter clips so that standard phone tips can be clamped to terminals. Shielded flat plugs Nos. 228 and 238 have nickel-plated steel handles; others have black plastic handles.

Part No.	Fig.	Term.	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
220#	D	Screw	$2.12	$1.59	$1.46	$1.19	$1.06
225*	D	Screw	2.12	1.59	1.46	1.19	1.06
227#	D	Solder	1.64	1.23	1.13	.923	.82
228	E	Solder	1.92	1.44	1.32	1.08	.96
230#•	D	Screw	2.64	1.98	1.82	1.49	1.32
237#•	D	Solder	2.48	1.86	1.71	1.40	1.24
238•	E	Solder	2.64	1.98	1.82	1.49	1.32

*Red handle. #Black handle. •Three conductor type; others are two conductor.

Littel-Plug PHONE PLUGS

Small size phone plugs fit standard ¼" phone jacks except Nos. S-250, S-260 and S-280, .206" dia. sleeve. Plugs with solder terminals have built-in cable clamp. Shielded metal handles are nickel-plated brass; others are plastic, ⅝" long x ½" dia.

Part No.	Fig.	Handle	Term.	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
TWO-CONDUCTOR TYPE								
240	F	Black	Screw	$1.48	$1.11	$1.02	$0.833	$0.74
C-240	F	Black	Screw	1.76	1.32	1.21	.99	.88
245	F	Red	Screw	1.48	1.11	1.02	.833	.74
250	F	Black	Solder	1.40	1.05	.963	.788	.70
255	F	Red	Solder	1.40	1.05	.963	.788	.70
270	G	Sh'l'd	Screw	2.32	1.74	1.60	1.31	1.16
C-270	G	Sh'l'd	Screw	2.40	1.80	1.65	1.35	1.20
280	G	Sh'l'd	Solder	2.04	1.53	1.40	1.15	1.02
S-250	F	Black	Solder	1.48	1.11	1.02	.833	.74
S-280	G	Sh'l'd	Solder	2.04	1.53	1.40	1.15	1.02
THREE-CONDUCTOR TYPE								
260	F	Black	Screw	$2.44	$1.83	$1.68	$1.37	$1.22
267	F	Black	Solder	2.12	1.59	1.46	1.19	1.06
269	F	Black	Solder	2.12	1.59	1.46	1.19	1.06
290	G	Sh'l'd	Screw	2.76	2.07	1.90	1.55	1.38
297	G	Sh'l'd	Solder	2.56	1.92	1.76	1.44	1.28

STANDARD ¼" PHONE PLUGS

Available with black phenolic or nickel-plated brass handles.

Part No.	Fig.	Handle Type	Handle Size L. x D.	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
TWO-CONDUCTOR TYPE—SCREW TERMINALS								
40	F	Black	2 1/16" x ¾"	$1.92	$1.44	$1.32	$1.08	$0.96
160	H	Sh'l'd	1" x 1 1/16"	2.12	1.59	1.46	1.19	1.06
70	G	Sh'l'd	11/16" x 2 1/16"	2.44	1.83	1.68	1.37	1.22
90	H	Sh'l'd	11/16" x 1"	2.52	1.89	1.73	1.42	1.26
THREE-CONDUCTOR TYPE—SOLDER TERMINALS								
60	F	Black	2 1/16" x 11/16"	$2.32	$1.74	$1.60	$1.31	$1.16
190A	G	Sh'l'd	11/16" x 2 1/16"	3.64	2.73	2.50	2.05	1.82
190	G	Sh'l'd	2 1/16" x 11/16"	2.92	2.19	2.01	1.64	1.46
350*	F	Black	½" x 2⅞"	1.24	.93	.853	.698	.62

*Solder lugs.

Tini-Plug MINIATURE PHONE PLUGS

Miniature 2-cond. phone plugs for use with Tini-Jax; only ⅓ the size of standard phone plugs. Handles, 1⅝" overall length. No. 780 has shielded nickel-plated brass handle; others have colored plastic handles.

Part No.	Fig.	Handle	Term.	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
740	I	Black	Screw	$1.32	$0.99	$0.908	$0.743	$0.66
745	I	Red	Screw	1.32	.99	.908	.743	.66
750	I	Black	Solder	1.28	.96	.88	.72	.64
755	I	Red	Solder	1.28	.96	.88	.72	.64
770	I	Metal	Screw	1.88	1.41	1.29	1.06	.94
780	I	Metal	Solder	1.80	1.35	1.24	1.01	.90

Micro-Plug SUBMINIATURE PHONE PLUGS

Ultra-miniature, 2-cond. phone plugs only 1 1/64" long, ¼" O.D., .097" sleeve. Mate with No. TR-2A. Screw-on handles in black, red, or natural anodized aluminum. All plugs have cable clamps.

Part No.	Fig.	Handle	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
850	J	Black	$1.24	$0.93	$0.853	$0.698	$0.62
880	J	Natural	1.24	.93	.853	.698	.62

"LUG-PLUG" PHONE PLUG

Low cost, 2-cond. phone plug fits all ¼" jacks. Solder lug terminals and phenolic handle (No. 350) or 1" lg. shielded handle (No. 380).

350	F	Black	$1.24	$0.93	$0.853	$0.698	$0.62
380	.....	Metal	1.52	1.14	1.05	.855	.76

MILITARY TYPE "TWIN-PLUG"

Meet exact military and industrial requirements. "Twin-Plug" sleeves spaced ⅝" center to center with self-aligning feature. No. 411 has two independent 2-cond. plugs in black plastic handle.

Part No.	Fig.	MIL Type	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
411	K	PJ-327	$8.12	$6.09	$5.58	$4.57	$4.06

Miti-Plug AUDIO PLUG

Premium quality 2 conductor phone plug with full shielding. Resists extremely rough usage. Large cable clamp on all plugs. Choice of cable flex relief spring and brass, red or black plastic handles.

Part No.	Fig.	Description	Net Each
174S	G	Brass handle w/relief spring	$3.28
175	G	Brass handle, no spring	3.24
176S	F	Black plastic handle w/spring	2.92
177S	F	Red plastic handle w/spring	2.92
178	F	Black plastic handle, no spring	2.94
179	F	Red plastic handle, no spring	2.84

Silent-Plug PHONE PLUGS

Plugs feature a circuit closing device that automatically shorts tip and sleeve together when plug is disconnected. Eliminates hum pickup, pops and squeals.

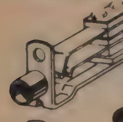
Part No.	Fig.	Terminals	Handle	Net Each
169	H	Screw	Shielded	$3.92
172	G	Screw	Shielded	5.00
181	G	Solder	Shielded	4.80
182	H	Solder	Shielded	3.80

TWO CONDUCTOR PHONE PLUGS

No. 170 has 2-piece handle with built-in cable clamp and cable relief bushing for ¼" cable. Nos. 183 thru 186 have new type solder lugs. Nos. 183 and 184 have Mylar insulation inside handle.

Part No.	Fig.	Handle	Terminals	Net Each
40	F	Black plastic	Screw	$1.92
70	G	Shielded	Screw	2.44
160	H	Shielded	Screw	2.12
170	G	Shielded	Screw	3.12
183	G	Shielded	Solder	3.04
184	G	Shielded	Solder	2.40
185	F	Black plastic	Solder	1.92
186	F	Red plastic	Solder	1.60

SWITCHCRAFT INC. PHONE JACKS, JACK PANELS AND PATCH CORDS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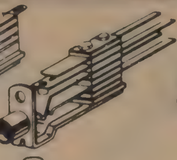
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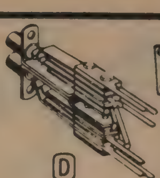
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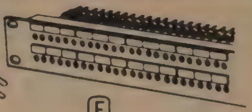
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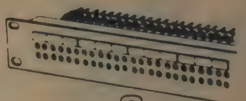
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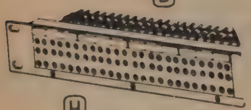
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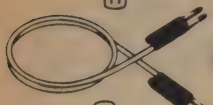
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TT-Jax® PHONE JACKS

High-quality miniature telephone jacks in 2- and 3-cond. types; mate with standard .173" dia. phone plugs. Gusseted steel frame for extra rigidity and stability; special nickel silver springs provide long life; welded crossbar palladium contacts. Require only 2³⁄₁₆" depth behind panel; (2¹¹⁄₁₆" for wire-wrap style); mount on ⁵⁄₁₆" centers in a ¼" dia. hole in panels up to ⅜" thick. Both TT-30 and WTT-30 jacks can be mounted in combination or interchangeably with "TT-Switch" and "TT Lamp-Jax" on Series 1600 panels.

Part No.	Fig.	Schematic No.	Cond.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
WITH SOLDER LUGS								
TT-32B	A	IV	3	$2.28	$1.71	$1.57	$1.28	$1.14
TT-34B	A	XII	3	2.44	1.83	1.68	1.37	1.22
WITH WIRE-WRAP TERMINALS								
WTT-32A	B	III	2	$2.40	$1.80	$1.65	$1.35	$1.20
WTT-32B	B	IV	3	2.16	1.62	1.49	1.22	1.08
WTT-34B	B	XII	3	2.64	1.98	1.82	1.49	1.32

"TT TWIN JAX"

Similar in design to Series TT-30 and WTT-30 single jacks, except that two frames are welded together back-to-back with mounting holes on ¹³⁄₁₆" centers and bushings on ⁵⁄₁₆" centers. Designed to be mounted on Series 1700 jack panels; mate with "TT" patch cords in Series TT-120, TT-160, TT-740 and TT-860. No. TT-89 has solder lugs; WTT-89 has wire-wrap terminals.

Part No.	Fig.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
TT-89	C	$7.36	$5.52	$5.06	$4.14	$3.68
WTT-89	D	7.56	5.67	5.20	4.25	3.78

"TT" TINI-TELEPHONE JACK PANELS

Jack panels provide up to 156 jacks in standard panels. Constructed of black anodized, extruded aluminum with an extra wide flange for rigidity. **Series 1600:** a double row panel for 96 TT-Jax in four molded plastic inserts. **Series 1700:** a double row panel for 48 "TT Twin-Jax" in two molded plastic inserts. **Series B1700:** same as Series 1700 except accommodates 48 "Tri-Jax" in two inserts. All series have plastic covered designation strip.

Part No.	Fig.	Rows	No. of Jacks	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
1600	F	2	96*	$46.20	$34.65	$31.76	$25.99	$23.10
1634B	F	2	96	271.80	203.85	186.86	152.89	135.90
1700	G	2	48*	47.40	35.55	32.59	26.66	23.70
B1700	H	3	48*	54.12	40.59	37.21	30.44	27.06
B1795	H	3	48	420.28	315.21	288.94	236.41	210.14

*Supplied less jacks.

"TT" PATCH CORDS

"Tini-Telephone" patch cords with 2- and 3-cond. single and twin plugs. Black handles, braided shield, black nylon cord. .173" dia. fingers. Mate with TT-Jax.

Series 720: 2-cond. shielded cord with 2-cond. plug on each end. Shield is connected to sleeves. One conductor is wired tip to tip. Other conductor is clipped off.

Series 740: 2-cond. shielded cord with 3-cond. plug on each end. Shield is connected to sleeves. Conductors are wired tip to tip and ring to ring.

Part No.	Fig.	Length	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
TT-744	K	2 ft.	$21.32	$15.99	$14.66	$11.99	$10.66
TT-747	K	4 ft.	24.52	18.39	16.86	13.79	12.26
TT-749	K	6 ft.	27.24	20.43	18.73	15.32	13.62

JACK PANELS

Rugged, heavy duty standard size jack panels for switching, distribution and control of audio signals in broadcasting stations theaters, PA systems, etc. Black phenolic panels reinforced with steel for rigidity. Mounting brackets slotted to fit all standard 19" relay racks. Panel includes plastic-covered designation strips.

Part No.	Fig.	Jacks No. of	Jacks Type of	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
1332A	I	24	MT-332A	$69.36	$52.02	$47.69	$39.02	$34.68
2532A	I	48	MT-332A	127.76	95.82	87.84	71.87	63.88
2732A	I	52	MT-332A	132.60	99.45	91.16	74.59	66.30

SERIES JP MODULAR JACK PANELS

Modular jack panel concept featuring assemblies (up to 4 jacks) installed from rear and fastened from the front. Accepts all standard telephone jack panel components. Panels are black anodized aluminum, designation inserts (2 supplied) are black molded plastic. Mounting screws are supplied. Type JP03 and 04 are double row panels with insert openings on ⅝" centers in quads, and ¾" opening between adjacent quads. JP03 is 19" wide and mounts 48 MT-Jax or 24 Twin-Jax. JP04 is 23" wide and mounts 56 components. Type JP09 is a double row panel with openings on ⅝" centers, measures 19" wide and mounts 52 MT-Jax or 26 Twin-Jax. All are supplied with 5⅜" long stand-off legs.

Part No.	Jacks No.	Jacks Type	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
JP03-2000	0	....	$ 44.64	$ 33.48	$30.69	$25.11	$22.32
JP03-2S32B	48	MT-332B	141.84	106.38	97.52	79.79	70.92
JP04-2000	0	....	50.24	37.68	34.54	28.26	25.12
JP04-2S32B	56	MT-332B	161.92	121.44	111.32	91.08	80.96

PATCH CORD SETS

All cords are constructed of bronze tinsel conductors, insulated and shielded, with a heavy black nylon braid overall. Fit all standard ¼" I.D. sleeve telephone jacks.

Series 17Q: 2-cond. cords with No. 413, 2-cond. "Twin-Plug" on each end. Shields grounded both ends.

Series 18Q: 2-cond. cords with No. 482, 3-cond. plug on each end. Shields grounded both ends.

Series 19Q: Single-conductor cords with No. 420, 2-cond. plug on each end. Shields grounded both ends.

Part No.	Fig.	Length	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
17QD17	L	2 ft.	$21.56	$16.17	$14.82	$12.13	$10.78
18QA18	L	6 in.	18.36	13.77	12.62	10.33	9.18
18QD18	L	2 ft.	20.04	15.03	13.78	11.27	10.02
18QF18	L	3 ft.	20.80	15.60	14.30	11.70	10.40
19QD19	L	2 ft.	11.16	8.37	7.67	6.28	5.58
19QF19	L	3 ft.	13.20	9.90	9.08	7.43	6.60

RIGHT ANGLE PC MOUNT TT-JAX MINIATURE TELEPHONE JACKS (FIG. M)

Low profile, miniature phone jacks available in both single and twin 3-conductor styles for patching or testing. Jacks are designed for right angle mounting on .062" max. thickness PC boards. Twin jacks are on ⁵⁄₁₆" centers. Bodies and covers are separate, and covers of different colors may be installed for circuit coding. Order jack cases and covers separately from table.

Part No.	Jack Style	Color	Net Each
JACK CASES			
RTT34B01	Single	Red	$1.80
RTT34B02	Single	Black	1.76
RTT34B04	Single	Blue	1.80
RTT34B05	Single	White	1.76
RTT34B07	Single	Orange	1.80
RTT34B08	Single	Yellow	1.80
RTT8701	Double	Red	3.48
RTT8702	Double	Black	3.40
RTT8705	Double	White	3.40
RTT8707	Double	Orange	3.48
RTT8708	Double	Yellow	3.48
JACK COVERS			
P286301	Single	Red	$0.296
P286302	Single	Black	.264
P286304	Single	Blue	.296
P286305	Single	White	.264
P286307	Single	Orange	.296
P286308	Single	Yellow	.296
P286401	Double	Red	.344
P286402	Double	Black	.304
P286404	Double	Blue	.344
P286405	Double	White	.304
P286407	Double	Orange	.344
P286408	Double	Yellow	.344

SWITCHCRAFT INC. Audio Connectors

"QG" QUICK-GROUND AUDIO CONNECTORS

Connectors feature a separate "Ground-Terminal" which is electrically integral with the connector shell. Ground continuity between mating plugs is automatically accomplished through the exclusive "Ground Contactors." Possible loss of insert screw is eliminated by new "Captive Design" insert screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. The Q-G series audio connectors offer up to 8-contact versatility when the ground terminal is used. Can be used interchangeably with Switchcraft QGP Series and other connectors with similar pin/contact arrangements. **F** and **M** in Part Numbers indicate male pins or female contacts. Male plugs and receptacles have one-piece pin insert assembly easily removable for soldering, polarizing groove and brass pins with silver plating. Female plugs have high-impact plastic socket insert, molded latchlock and keyed neoprene relief bushing. Suffix **L** indicates connectors with strain relief accepting cables from ¼″ to .328″ diam.; others accept cables up to ¼″ diam. Suffix **B** indicates connectors with Black Velvet oxide finish; others have satin nickel finish.

A*F AND A*M CORD PLUGS

Mate with A*M and other connectors with similar contact arrangements. Overall length, $3\frac{7}{32}$″; diam., ¾″.

Part Number	Fig.	No. of Contacts	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
A3F	A	3	$3.64	$2.73	$2.50	$2.05	$1.82
A3M	B	3	3.16	2.37	2.17	1.78	1.58
A3FL	A	3	3.88	2.91	2.67	2.18	1.94
A3ML	B	3	3.36	2.52	2.31	1.89	1.68
A3FB	A	3	4.16	3.12	2.86	2.34	2.08
A3MB	B	3	3.76	2.82	2.59	2.12	1.88
A4F	A	4	4.56	3.42	3.14	2.57	2.28
A4M	B	4	3.36	2.52	2.31	1.89	1.68
A4FL	A	4	4.84	3.63	3.33	2.72	2.42
A4ML	B	4	3.60	2.70	2.48	2.03	1.80
A5F	A	5	7.48	5.61	5.14	4.21	3.74
A5M	B	5	5.96	4.47	4.10	3.35	2.98
A5FL	A	5	7.68	5.76	5.28	4.32	3.84
A5ML	B	5	6.32	4.74	4.35	3.56	3.16
A6F	A	6	8.52	6.39	5.86	4.79	4.26
A6M	B	6	6.76	5.07	4.65	3.80	3.38
A7F	A	7	9.56	7.17	6.57	5.38	4.78
A7M	B	7	7.44	5.58	5.12	4.19	3.72

R*F AND R*M PLUGS

Right angle cord plug for minimum-space connecting.

R3F	C	3	$8.24	$6.18	$5.67	$4.64	$4.12
R3M	D	3	7.60	5.70	5.23	4.28	3.80
R3FL	C	3	8.36	6.27	5.75	4.70	4.18
R3ML	D	3	7.80	5.85	5.36	4.39	3.90
R4F	C	4	9.28	6.96	6.38	5.22	4.64
R4M	D	4	7.80	5.85	5.36	4.39	3.90
R4FL	C	4	9.52	7.14	6.55	5.36	4.76
R4ML	D	4	8.04	6.03	5.53	4.52	4.02
R5F	C	5	12.68	9.51	8.72	7.13	6.34
R5M	D	5	11.12	8.34	7.65	6.26	5.56
R5FL	C	5	12.80	9.60	8.80	7.20	6.40
R5ML	D	5	11.40	8.55	7.84	6.41	5.70
R6F	C	6	13.80	10.35	9.49	7.76	6.90
R7F	C	7	14.80	11.10	10.18	8.33	7.40
R7M	D	7	12.60	9.45	8.66	7.09	6.30

T*F PLUG WITH ON-OFF SWITCH

Cord plug connects directly to microphone. Built-in sub-miniature slide switch permits on-off control of audio. Switch provides in-line SPDT switching—locking for Model T3F or momentary for Model T3FM. Overall length, $3\frac{61}{64}$″, diam., ¾″.

T3F	E	3	$ 9.80	$7.35	$6.74	$6.13	$4.90
T3FM	E	3	10.12	7.59	6.96	6.33	5.06

P*M PLUGS

Female plug mounts directly to gooseneck or mike stem. Length, 2¼″, diam., ¾″; has ⅝-27NS-2B internal thread $\frac{9}{16}$″ deep. Male plug mounts directly on bottom of gooseneck stem and plugs into receptacle on console, lectern, podium, etc. Length, $1\frac{15}{16}$″, diam., ¾″, has ⅝-27NS-2B external thread.

P3F	F	3	$5.00	$3.75	$3.44	$2.81	$2.50
P3M	G	3	4.00	3.00	2.75	2.25	2.00

N*MS SHORTING PLUG

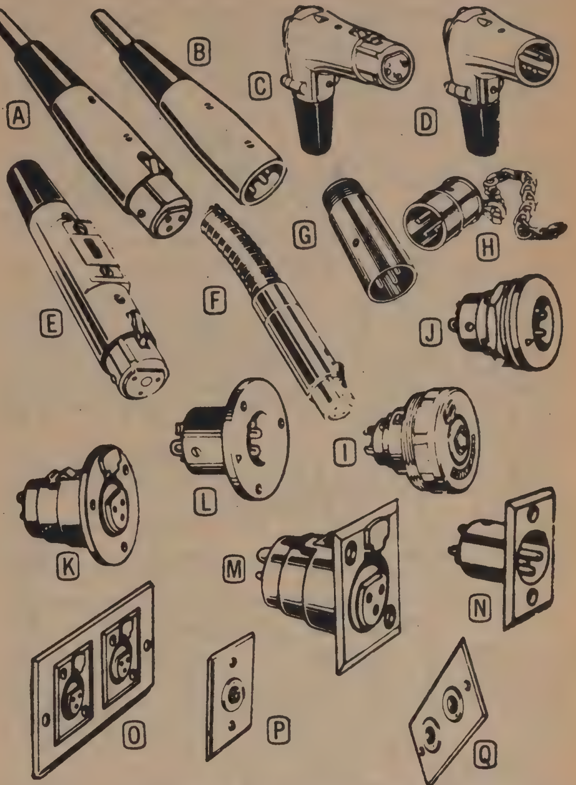
Male shorting plug connects to female receptacle, shorts out microphone input circuit, provides physical protection. Length, 1.39″, diam. 0.77″.

N3MS	H	3	$6.08	$4.56	$4.18	$3.42	$3.04

B*F AND B*M RECEPTACLES

Male receptacles mount in panels up to ¼″ thick. Flange diam. $1\frac{7}{64}$″. Female receptacles mount with 1¼″-18 spanner nut in panels up to $\frac{7}{16}$″ thick. Flange diam. $1\frac{7}{64}$″. $1\frac{7}{64}$″ overall.

B3F	I	3	$ 7.48	$5.61	$5.14	$4.21	$3.74
B3M	J	3	4.52	3.39	3.11	2.54	2.26
B3FB	I	3	9.04	6.78	6.22	5.09	4.52
B3MB	J	3	5.40	4.05	3.71	3.04	2.70
B4F	I	4	7.80	5.85	5.36	4.39	3.90
B4M	J	4	4.64	3.48	3.19	2.61	2.32
B5F	I	5	10.84	8.13	7.45	6.10	5.42
B5M	J	5	7.64	5.73	5.25	4.30	3.82
B6F	I	6	11.92	8.94	8.20	6.71	5.96
B6M	J	6	8.32	6.24	5.72	4.68	4.16
B7F	I	7	12.84	9.63	8.83	7.22	6.42
B7M	J	7	9.04	6.78	6.22	5.09	4.52



C*F AND C*M RECEPTACLES

For panel or chassis mounting with four .140″ diam. holes in flange. Female has socket insert push-type latch locking device. Both measure $1\frac{7}{16}$″ diam.; female measures $1\frac{7}{64}$″ overall, male measures $1\frac{13}{16}$″ overall.

Part Number	Fig.	No. of Contacts	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
C3F	K	3	$ 4.56	$3.42	$3.14	$2.57	$2.28
C3M	L	3	3.04	2.28	2.09	1.71	1.52
C4F	K	4	5.76	4.32	3.96	3.24	2.88
C4M	L	4	3.24	2.43	2.23	1.82	1.62
C5F	K	5	9.36	7.02	6.44	5.27	4.68
C5M	L	5	5.76	4.32	3.96	3.24	2.88
C6F	K	6	10.72	8.04	7.37	6.03	5.36
C6M	L	6	6.56	4.92	4.51	3.69	3.28
C7F	K	7	11.96	8.97	8.22	6.73	5.98
C7M	L	7	7.20	5.40	4.95	4.05	3.60

D*F AND D*M RECEPTACLES

Rectangular flange receptacles permits close mounting on crowded panels or chassis. Flange on male units measures ⅞″ x $1\frac{7}{16}$″; female flange measures $1\frac{1}{16}$″ x $1\frac{7}{16}$″.

D3F	M	3	$ 4.20	$3.15	$2.89	$2.36	$2.10
D3M	N	3	3.04	2.28	2.09	1.71	1.52
D3FB	M	3	5.00	3.75	3.44	2.81	2.50
D3MB	N	3	3.84	2.88	2.64	2.16	1.92
D4F	M	4	5.28	3.96	3.63	2.97	2.64
D4M	N	4	3.24	2.43	2.23	1.82	1.62
D5F	M	5	8.60	6.45	5.91	4.84	4.30
D5M	N	5	5.76	4.32	3.96	3.24	2.88
D6F	M	6	9.84	7.38	6.77	5.54	4.92
D6M	N	6	6.56	4.92	4.51	3.69	3.28
D7F	M	7	11.00	8.25	7.56	6.19	5.50
D7M	N	7	7.20	5.40	4.95	4.05	3.60

K*F WALL PLATES

Two-gang wall plates with dual D*F female receptacles. Stainless steel finish; available in brushed brass finish on special order. Flange measures 4½″ x 2¾″.

K3FS	O	3	$11.48	$8.61	$7.89	$6.46	$5.74
K4FS	O	4	12.32	9.24	8.47	6.93	6.16

G*M TYPE WALL PLATE

Single gang wall plate with a B*M male receptacle fits standard single electrical outlet box. Available in brushed stainless steel as standard or in brushed brass on special order. Size, 4½″ h. x 2¾″ w.

G3MS	P	3	$7.76	$5.82	$5.34	$4.37	$3.88
G4MS	P	4	8.24	6.18	5.67	4.64	4.12

H*M WALL PLATES

Two-gang wall plates with dual B*M male receptacles. Mounts in standard single switch box. Brushed stainless steel finish; available in brushed brass on special order. Measures 4½″ x 2¾″.

H3MS	Q	3	$10.88	$8.16	$7.48	$6.12	$5.44
H4MS	Q	4	11.72	8.79	8.06	6.59	5.86

LISTING CONTINUED ON FOLLOWING PAGE

SWITCHCRAFT INC. Audio Connectors

"QG" QUICK-GROUND AUDIO CONNECTORS
(CONTINUED)

J*F WALL PLATES

Single-gang wall plates with one D*F female receptacle for standard electrical outlet box. Brushed stainless steel finish; available in brushed brass on special order. Measures 4½″ x 2¾″.

Part Number	Fig.	No. of Contacts	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
J3FS	R	3	$8.16	$6.12	$5.61	$4.59	$4.08
J4FS	R	4	8.40	6.30	5.78	4.73	4.20

S*FM CONNECTOR ADAPTER

Male insert at one end, female insert at other end. Space for circuitry inside. Use as a transformer, attenuator, etc. Measures 4″ long. Unwired.

S3FM	S	3	$7.44	$5.58	$5.12	$4.19	$3.72
S4FM	S	4	9.20	6.90	6.33	5.18	4.60

L*M AND M*M MALE ADAPTER RECEPTACLES

Male adapter receptacles mount directly to microphones or other equipment. Model L*M has plain cylindrical shell 47/64″ diam. with 3/64″ collar. Model L*MN has same shell with knurled coupling nut. Model M*M has short cylindrical shell 13/16″ long with 13/16″-27 thread.

L3MN	U	3	$4.52	$3.39	$3.11	$2.54	$2.26
M3M	V	3	4.08	3.06	2.81	2.30	2.04

W*M RECEPTACLE

Right angle male chassis/panel mount receptacle for minimum space connecting applications.

W3M	W	3	$2.64	$1.98	$1.82	$1.49	$1.32

TINI "QG" MINIATURE AUDIO AND GENERAL PURPOSE CONNECTORS

Miniaturized "QG" connectors are ideal for use with slim style, small lavaliere microphones and for miniaturized instrumentation. Shielded or unshielded cable up to .115″ diam. may be used; if the flex relief bushing is omitted, Series T*FL and T*ML only, cables up to .17″ may be used. Features of the Tini "QG" line include 3, 4 or 5 pins/contacts; full cable clamp and flex relief; "Through-Connector" shielding; latch locking; pin protection; polarized mating; and attractive escutcheons in colors. Plugs and male receptacles are nickel-plated brass; female receptacles are nickel-plated, die-cast zinc. Pins and socket contacts are silver-plated copper alloy.

TA*F AND TA*FL CORD PLUGS

Straight female cord plugs with nickel finish and black plastic parts. Measures .413″ diam. x 1.90″ long (Series TA*F) or 1.40″ long (Series TA*FL).

Part Number	Fig.	No. of Contacts	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
TA3F	X	3	$4.24	$3.18	$2.92	$2.39	$2.12
TA3FL	X	3	4.24	3.18	2.92	2.39	2.12
TA4F	X	4	4.44	3.33	3.05	2.50	2.22
TA4FL	X	4	4.44	3.33	3.05	2.50	2.22
TA5F	X	5	6.56	4.92	4.51	3.69	3.28
TA5FL	X	5	6.56	4.92	4.51	3.69	3.28

TA*M AND TA*ML CORD PLUGS

Straight male cord plugs with nickel finish and black plastic parts. Measures .413″ diam. x 2.04″ long (Series TA*M) or 1.535″ long (Series TA*ML).

TA3M	Y	3	$3.84	$2.88	$2.64	$2.16	$1.92
TA3ML	Y	3	3.84	2.88	2.64	2.16	1.92
TA4M	Y	4	3.96	2.97	2.72	2.23	1.98
TA4ML	Y	4	3.96	2.97	2.72	2.23	1.98
TA5M	Y	5	5.28	3.96	3.63	2.97	2.64
TA5ML	Y	5	5.28	3.96	3.63	2.97	2.64

TB*M RECEPTACLES

Male receptacles for chassis/panel mounting. Thin flange permits close (front) mounting on crowded panels. Mounting hardware supplied.

TB3M	Z	3	$3.92	$2.94	$2.70	$2.21	$1.96
TB4M	Z	4	4.12	3.09	2.83	2.32	2.06
TB5M	Z	5	6.56	4.92	4.51	3.69	3.28

TY*F AND TY*FPC RECEPTACLES

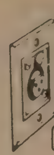
Female receptacles mount in minimum space from front or rear of panels or chassis. All have separate ground lug. Series TY*F has solder lugs; Series TY*FPC has PC terminals.

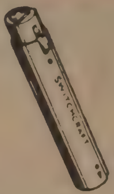
TY3F	AA	3	$4.84	$3.63	$3.33	$2.72	$2.42
TY3FPC	AA	3	4.84	3.63	3.33	2.72	2.42
TY4F	AA	4	5.00	3.75	3.44	2.81	2.50
TY4FPC	AA	4	5.00	3.75	3.44	2.81	2.50
TY5F	AA	5	6.96	5.22	4.79	3.92	3.48
TY5FPC	AA	5	6.96	5.22	4.79	3.92	3.48

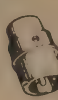
TYEF ECUTCHEONS

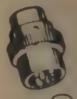
Colorful escutcheons for use with TY*F and TY*FPC receptacles for coding or quick recognition. For rear mount receptacles only.

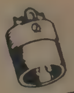
Part Number	Color	Fig.	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
TYEF-02	Black	BB	$0.48	$0.36	$0.33	$0.27	$0.24
TYEF-04	Blue	BB	.48	.36	.33	.27	.24

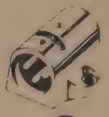


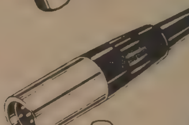


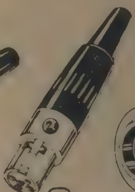


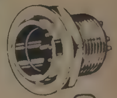


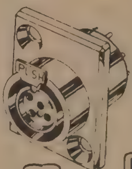


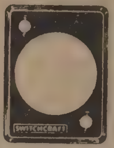


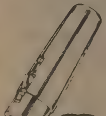


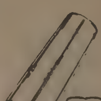


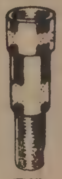


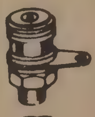


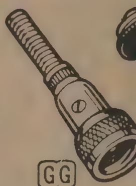


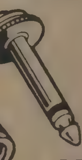


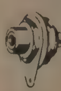


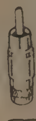












TA ADAPTERS

Adapt Tine "QG" connectors to mate with standard size "QG" or QGP connectors.

Part Number	Tini "QG" End	"QG" End	Fig.	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
TA-01	TA3F	A3M	CC	$6.60	$4.95	$4.54	$3.71	$3.30
TA-02	TA4F	A4M	CC	7.88	5.91	5.42	4.43	3.94
TA-03	TA5F	A5M	CC	8.48	6.36	5.83	4.77	4.24
TA-04	TA3M	A3F	DD	6.68	5.01	4.59	3.76	3.34
TA-05	TA4M	A4F	DD	8.04	6.03	5.53	4.52	4.02
TA-06	TA5M	A5F	DD	8.68	6.51	5.97	4.88	4.34

"MINI-CON" MINIATURE CONNECTORS

Miniature microphone-type connectors used with compact audio equipment, lapel microphones, musical instruments, etc. About ½ the size of standard microphone connectors. Accepts single conductor shielded cables up to 3/16″ O.D. Nickel-plated brass bodies. Coupling ring on 5501F removable for quick change of female to male type. Cable braid and spring clamped to body by hollow point screw. Type 5501MP mounts on back side of panel in 3/16″ hole.

Part Number	Fig.	Description	Net Each, Lots of				
			1-9	10-24	25-99	100-249	250-499
5501F	EE	Female, cord	$1.36	$1.02	$0.935	$0.765	$0.68
5501MP	FF	Male, panel	1.24	.93	.853	.698	.62

MICROPHONE CONNECTORS

Standard connectors with 5/8″-27 threads. Designed for use with single conductor cables up to 3/32″ O.D. Coupling ring on 2501F removable for quick change of female to male type. Spring and cable braid clamped by hollow point screw. No. 44 adapts No. 2501F to fit standard 2-cond. phone jack. No. 2501MP mounts in .385″ dia. hole.

2501F	GG	Female, cord	$1.36	$1.02	$0.935	$0.765	$0.68
44	HH	Adapter	1.12	.84	.77	.63	.56
2501MP	....	Panel	1.08	.81	.743	.608	.54

*Closed-circuit type.

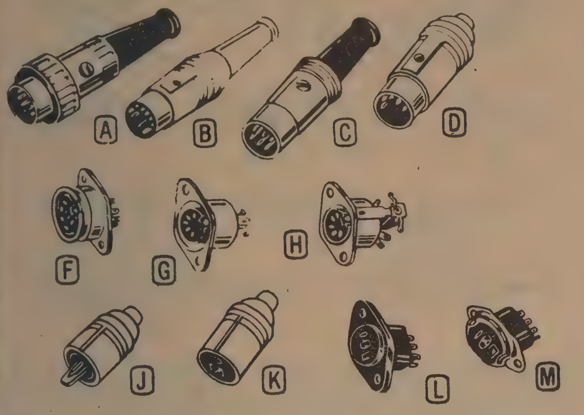
RF JACKS AND PLUGS

Standard phono plugs and jacks with nylon insulation for use in radio-frequency applications. Provide maximum insulation resistance. No. 3505F mounts from front in panels up to 11/64″ thick. No. 3507 has 13/32″ O.D. shielded, screw-on handle with cable clamp.

3505F	II	Chassis jack	$0.96	$0.72	$0.66	$0.54	$0.48
3507	JJ	Plug	1.20	.90	.825	.675	.60

SWITCHCRAFT® INC. Audio and Power Connectors

"PREH" SERIES AUDIO CONNECTORS



A complete low-cost series of miniature audio connectors that provides exact replacements for plugs and receptacles used on most foreign-built tape recorders, radios and dictation equipment. Units have bright, nickel-plated shells and plastic snap-on shells, lock-ring coupling, silver-plated contact pins, contact friction coupling for low mechanical interference noise, automatic grounding and polarization provisions. Positioning "Ground Key-Rib" or "Ground Contact"—electrically integral with the connector shell—is provided in each plug and receptacle (except those with plastic housings or shells) to ground or shield the connector shell.

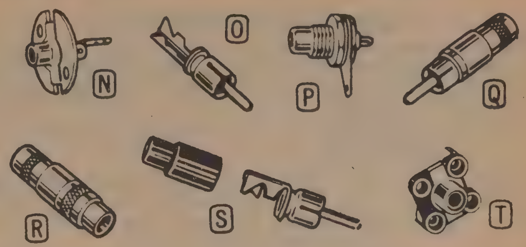
Part Number†	Body Fig.	Pin or Contact Ident.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
STRAIGHT CORD PLUGS WITH 30° LOCK RING							
05CL3M	A	1	$4.92	$3.69	$3.38	$2.77	$2.46
05CL5M	A	2	5.88	4.41	4.04	3.31	2.94
09CL4M	A	3	5.40	4.05	3.71	3.04	2.70
12CL5M	A	4	5.88	4.41	4.04	3.31	2.94
STRAIGHT CORD PLUGS WITH SHIELDED BARREL							
05GM5M	B	5	$2.36	$1.77	$1.62	$1.33	$1.18
15GM7M	B	7	2.68	2.01	1.84	1.51	1.34
STRAIGHT CORD PLUGS WITH EXTENDED BARREL							
05BL5M	C	5	$3.04	$2.28	$2.09	$1.71	$1.52
12BL6M	C	6	3.16	2.37	2.17	1.78	1.58
STRAIGHT CORD PLUGS WITH SNAP-LOCK PLASTIC SHELL							
05LK5M	D	5	$2.12	$1.59	$1.46	$1.19	$1.06
12LK5M	D	4	2.24	1.68	1.54	1.26	1.12
RECEPTACLES FOR LOCK RING PLUGS							
57HA3F	F	9	$2.24	$1.68	$1.54	$1.26	$1.12
60HA4F	F	10	2.40	1.80	1.65	1.35	1.20
61HA5F	F	11	2.68	2.01	1.84	1.51	1.34
RECEPTACLES FOR SHIELDED AND EXTENDED BARREL PLUGS							
57GB5F	G	12	$1.60	$1.20	$1.10	$0.90	$0.80
61GA5F	G	11	1.52	1.14	1.05	.855	.76

CONTROL AND SWITCHING PLUGS AND RECEPTACLES

Designed for connecting remote speakers and electronic test and measurement equipment. When male plug No. 01QK2M is inserted, contact is normally made between terminals 1 and 2. Closed circuit switch in No. 54DA2F is not actuated. By removing the plug, rotating it 180° and re-inserting it, the internal switch is opened and the polarity with respect to terminal 2 is unchanged.

CONTROL AND SWITCHING PLUGS WITH SNAP-ON PLASTIC SHELLS							
01QK2M	J	8	$1.00	$0.75	$0.688	$0.563	$0.50
02QK2F	K	13	1.48	1.11	1.02	.833	.74
RECEPTACLES WITH INSULATED PLASTIC BODY							
53CA2F	L	13	$1.40	$1.05	$0.963	$0.788	$0.70

†Last digit in Part Number denotes number of pins or contacts



PHONO JACKS AND PLUGS

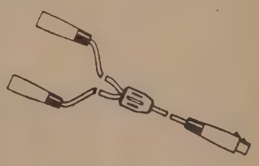
Low cost, 2-conductor jacks and plugs for record players, tuners, tape recorders, test equipment, etc. No. 3501MC has ⅜" O.D. shell and cable clamp. No. 3501FP mounts from front in ¼" hole in panels up to ⅛" thick. No. 3501FR mounts from rear in ⅜" hole in panels up to 13/64" thick. No. 3502 has 13/32" O.D. shielded removable handle and cable clamp. No. 3503 external jack has 13/32" O.D. removable handle with cable clamp. Series 3508 have cable clamps and snap-on plastic handles in red, black and white

Part Number	Fig.	Description	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
3501F	N	Chassis jack	$0.32	$0.24	$0.22	$0.18	$0.16
3501M	......	Plug, no clamp	.24	.18	.165	.135	.12
3501MC	O	Plug	.44	.33	.303	.248	.22
3501FP	P	Chassis jack	.56	.42	.385	.315	.28
3501FR	......	Chassis jack	.72	.54	.495	.405	.36
3502	Q	Plug	.80	.60	.55	.45	.40
3503	R	Ext. jack	1.20	.90	.825	.675	.60
3558-1	S	Plug, red	.48	.36	.33	.27	.24
3558-2	S′	Plug, black	.48	.36	.33	.27	.24
3558-5	S	Plug, white	.48	.36	.33	.27	.24
3511	T	Chassis jack†	.52	.39	.358	.293	.26
3511A	T	Chassis jack‡	.52	.39	.358	.293	.26
3512	T	Chassis jack*	.56	.42	.385	.315	.28
3512A	T	Chassis jack#	.56	.42	.385	.315	.28

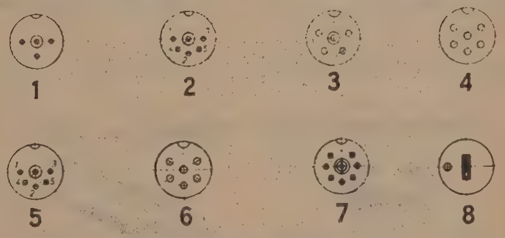
*Closed circuit type. #Closed circuit and grounding type. †Open circuit type. ‡Open circuit, grounded shell.

Y-ADAPTER

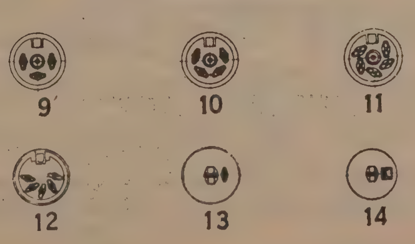
Rugged Y-adapters parallel two inputs or split two outputs. All 3-pin connectors are the Switchcraft "Q-G" type with gray shielded cable. The molded junction protects against dust, dirt, moisture and abuse. "Quick-Ground" feature on all plugs. Mates with Switchcraft "Q-G", "QGP" connectors and others with similar pin/contact arrangements.



Part Number	Description	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
391Q13	A3F and A3M in parallel to A3M	$28.00	$21.00	$19.25	$15.75	$14.00



PIN ARRANGEMENTS



CONTACT ARRANGEMENTS

SWITCHCRAFT INC. Audio Cable Assemblies

AUDIO CABLE ASSEMBLIES

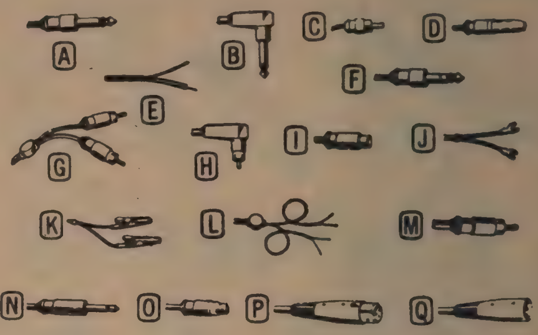
Molded cable assemblies offer built-in cable clamps to support cable and eliminate strain. Functionally designed handles provide easy grip. Cable is chrome gray with matching plastic handles. Fig. P is Switcraft "Q-G" 3-contact female connector. Fig. Q is "Q-G" 3-pin receptacle.

Part No.	Terminations		Lgth. Feet	Net Each, Lots of				
	End #1 Fig.	End #2 Fig.		1-9	10-24	25-99	100-249	250-499
STRAIGHT 2-CONDUCTOR PHONE PLUG TO VARIOUS CONNECTORS								
05AC05	A	A	1.5	$3.44	$2.58	$2.37	$1.94	$1.72
05AD05	A	A	2	3.48	2.61	2.39	1.96	1.74
05AK05	A	A	6	5.28	3.96	3.63	2.97	2.64
05AN05	A	A	10	5.36	4.02	3.69	3.02	2.68
05AU05	A	A	25	7.16	5.37	4.92	4.03	3.58
05AN15	A	B	10	5.36	4.02	3.69	3.02	2.68
05AK25	A	C	6	3.40	2.55	2.34	1.91	1.70
05AN25	A	C	10	4.60	3.45	3.16	2.59	2.30
05AN80	A	D	10	6.76	5.07	4.65	3.80	3.38
05AU80	A	D	25	9.00	6.75	6.19	5.06	4.50
05AK84	A	E	6	2.68	2.01	1.84	1.51	1.34
05AN84	A	E	10	4.96	3.72	3.41	2.79	2.48
STRAIGHT 3 CONDUCTOR PHONE PLUG TO VARIOUS CONNECTORS								
10BK10	F	F	6	$8.64	$6.48	$5.94	$4.86	$4.32

Stereo cable assemblies for use with stereo tape recorders using 3-conductor dual microphone inputs, such as Norelco, Webcor, Revere and Wollensak.

Part No.	Terminations		Lgth. Feet	Net Each, Lots of				
	End #1 Fig.	End #2 Fig.		1-9	10-24	25-99	100-249	250-499
10FK25	F	G	6	$6.84	$5.13	$4.70	$3.85	$3.42
STRAIGHT PHONO PLUG TO VARIOUS CONNECTORS								
25AC25	C	C	1.5	$1.92	$1.44	$1.32	$1.08	$0.96
25AF25	C	C	3	2.08	1.56	1.43	1.17	1.04
25AH25	C	C	4	2.44	1.83	1.68	1.37	1.22
25AK25	C	C	6	2.56	1.92	1.76	1.44	1.28
25AN25	C	C	10	3.36	2.52	2.31	1.89	1.68
25AR25	C	C	15	4.08	3.06	2.81	2.30	2.04
25AT25	C	C	20	4.92	3.69	3.38	2.77	2.46
25AU25	C	C	25	5.88	4.41	4.04	3.31	2.94
25WN25*	C	C	10	2.80	2.10	1.93	1.58	1.40
25WT25*	C	C	20	3.20	2.40	2.20	1.80	1.60
25AC30	C	H	1.5	1.80	1.35	1.24	1.01	.90
25AF30	C	H	3	2.04	1.53	1.40	1.15	1.02
25AK82	C	I	6	2.92	2.19	2.01	1.64	1.46
25AN82	C	I	10	4.08	3.06	2.81	2.30	2.04
25AT82	C	I	20	5.20	3.90	3.58	2.93	2.60
25WN82*	C	I	10	3.40	2.55	2.34	1.91	1.70
25WT82*	C	I	20	4.00	3.00	2.75	2.25	2.00
25AF84	C	E	3	1.56	1.17	1.07	.878	.78
25AH84	C	E	4	1.68	1.26	1.16	.945	.74
25AK84	C	E	6	1.96	1.47	1.35	1.10	.98
25AN84	C	E	10	2.80	2.10	1.93	1.58	1.40
25WN84	C	E	10	2.00	1.50	1.38	1.13	1.00
25WT84	C	E	20	2.80	2.10	1.93	1.58	1.40
25CN85#	C	J	10	2.68	2.01	1.84	1.51	1.34

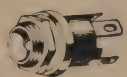
*Molded brown handles and clear rip cord cable. #Parallel unshielded cable.



Special stereo cables. Two shielded, insulated cables inside a common plastic jacket. Provides two isolated channels for all stereo applications. Color coded phono plugs.

Part No.	Terminations		Lgth. Feet	Net Each, Lots of				
	End #1 Fig.	End #2 Fig.		1-9	10-24	25-99	100-249	250-499
25FF25	G	G	3	$5.60	$4.20	$3.85	$3.15	$2.80
25FK25	G	G	6	6.92	5.19	4.76	3.89	3.46
25FN25	G	G	10	8.68	6.51	5.97	4.88	4.34
25FF82	G	I	3	6.12	4.59	4.21	3.44	3.06
25FK82	G	I	6	7.20	5.40	4.95	4.05	3.60
STRAIGHT LONG HANDLE PHONO PLUG TO VARIOUS CONNECTORS								
26AF26	M	M	3	$2.16	$1.62	$1.49	$1.22	$1.08
26AK26	M	M	6	2.80	2.10	1.93	1.58	1.40
26AN82	M	I	10	3.68	2.76	2.53	2.07	1.84
RIGHT ANGLE PHONO PLUG TO VARIOUS CONNECTORS								
30AK30	H	H	6	$2.52	$1.89	$1.73	$1.42	$1.26
30AN30	H	H	10	3.48	2.61	2.39	1.96	1.74
30AR30	H	H	15	4.24	3.18	2.92	2.39	2.12
STRAIGHT TINI-PLUG TO VARIOUS CONNECTORS								
40DF05	N	A	3	$3.72	$2.79	$2.56	$2.09	$1.86
40DK05	N	A	6	4.52	3.39	3.11	2.54	2.26
40DF25	N	C	3	3.24	2.43	2.23	1.82	1.62
40DK25	N	C	6	3.72	2.79	2.56	2.09	1.86
40DN25	N	C	10	4.28	3.21	2.94	2.41	2.14
40DK40	N	N	6	4.60	3.45	3.16	2.59	2.30
40DK80	N	D	6	5.44	4.08	3.74	3.06	2.72
40DK83	N	O	6	4.20	3.15	2.89	2.36	2.10
40DN83	N	O	10	5.40	4.05	3.71	3.04	2.70
40DF84	N	E	3	2.80	2.10	1.93	1.58	1.40
CORDS WITH SPADE LUGS								
85CT85#	J	J	20	$2.76	$2.07	$1.90	$1.55	$1.38
85CU85#	J	J	25	3.36	2.52	2.31	1.89	1.68
MICROPHONE CONNECTORS								
91BU92	P	Q	25	20.12	15.09	$13.83	$11.32	$10.06

"POWER JAX" POWER PLUGS AND JACKS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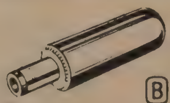
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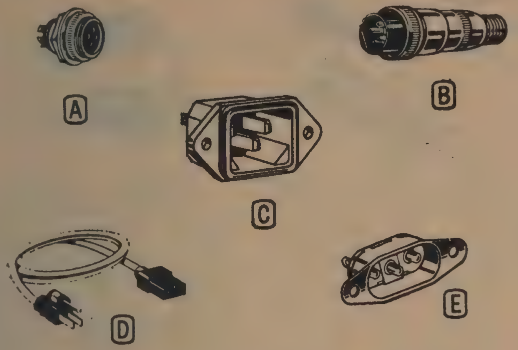
Designed for AC/DC converter/battery charger connections. Jacks mount in 5/16" dia. hole in panels up to 1/8" thick.

Part No.	Fig.	Pin Diam.	Mates With	Net Each, Lots of				
				1-9	10-24	25-99	100-249	250-499
POWER JACKS								
712A	A	.100"	760	$1.64	$1.23	$1.13	$0.923	$0.82
POWER PLUGS								
760	B	.100"	712A	$1.40	$1.05	$0.963	$0.788	$0.70
S-760	B	.080"	722A	1.48	1.11	1.02	.833	.74

MOLDED HEADPHONE CABLES

Part No.	Description	Net Each, Lots of				
		1-9	10-24	25-99	100-249	250-499
05KJ88	4 foot, 2-cond. cable from phone plug to Y junc. 1 foot cable to eyelet plugs	$6.96	$5.22	$4.79	$3.92	$3.48
05NJ88	Straight 2-cond. phone plug to eyelet plugs. 5 foot (extended) coiled cord	11.48	8.61	7.89	6.46	5.74



"SLIM-LINE" I AUDIO CONNECTORS

Small, 4-contact connectors for audio and communications equipment. No. 2504FP is a female receptacle, 49⁄64" dia., ¾" depth behind panel; mounting hardware supplied. No. 2504M is a 4-pin, male cord plug with coupling ring. Mates with No. 2504FP. Bright nickel plating on all metal parts.

Part No.	Fig.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
2504FP	A	$3.56	$2.67	$2.45	$2.00	$1.78
2504M	B	5.00	3.75	3.44	2.81	2.50

EUROPEAN AC RECEPTACLES

AC receptacles designed to meet European standards. Three pins are .078" x .157"; UL and CSA approved. Molded plastic housing. Mate with Switchcraft No. P-2392, Belden No. 17250 or European cord sets. **Mtg. Hole:** .785" x 1.08" (front mtg.) or .906" x 1.2" (rear mtg.). **Ratings:** EAC-301, 6 amps; EAC-302, 15 amps.

Part Number	Fig.	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
EAC-301	C	$1.48	$1.11	$1.02	$0.833	$0.74
EAC-302	C	1.48	1.11	1.02	.833	.74

EUROPEAN AC LINE CORD

AC line cord has three #18 conductors in black vinyl jacket. Measures 7½ ft. overall. Receptacle mates with Switchcraft No. EAC-301 or with European equivalents. Male plug is three-pin type. U.L. and C.S.A. approved. Available for government/military applications under Part No. FSN-6150-3405.

P-2392	D	$5.12	$3.84	$3.52	$2.88	$2.56

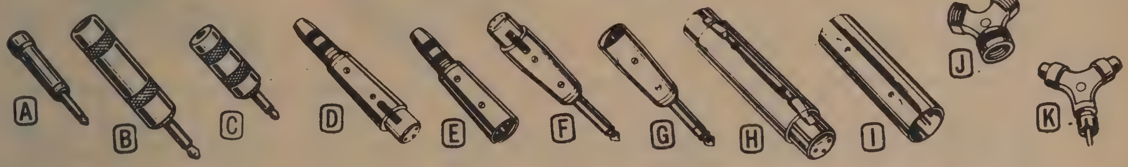
AC RECEPTACLES

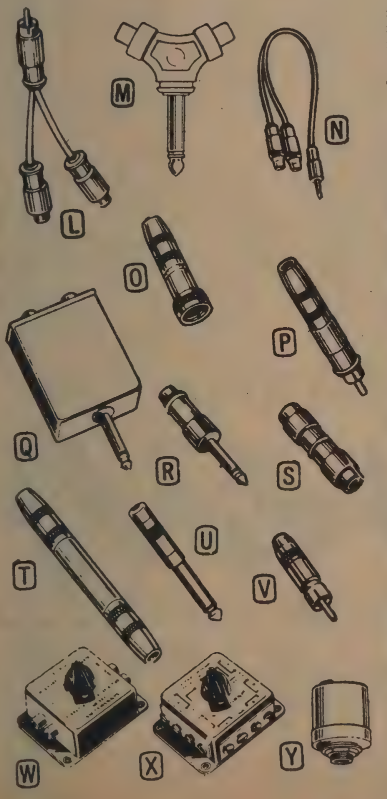
Three-pin receptacles for use in all electrical/electronic equipment. Recessed type mounting. Brass contact pins are silver-plated and chromate dipped. Include self-aligning feature to compensate for misalignment. U.L. approved. Rated 7 amps at 115 V.

AC3#	E	$1.68	$1.26	$1.16	$0.945	$0.84
AC3G#	E	1.60	1.20	1.10	.90	.80
LAC3G*	E	1.80	1.35	1.24	1.01	.90
LAC3GD†	E	1.92	1.44	1.32	1.08	.96

*Center pin grounded; others ungrounded. #Pins .122" dia. for mating with custom cords such as Belden No. 17250; others standard .124" dia. †Center pin ⅛" longer to make contact first.

AUDIO ADAPTERS





Adapters for interconnecting components that do not have mating jacks and/or plugs. For hi-fi, phonographs, tuners, tape recorders, amplifiers, etc. Positive mating contacts of high quality material prevent line losses. Nickel plated finish for long life. No. 332A can be used as male or female connector; coupling ring screws back, converting to male connector. All are 2-cond. except where noted.

Part Number	Fig.	Description	Net Each, Lots of 1-9	10-24	25-99	100-249	250-499
370A	A	Phono jack to Tini-Plug (9⁄64" dia.)	$2.24	$1.68	$1.54	$1.26	$1.12
374	B	Phone jack to Tini-Plug (9⁄64" dia.)	3.32	2.49	2.28	1.87	1.66
376	C	Tini-Jax to Micro-Plug (.097" dia.)	3.56	2.67	2.45	2.00	1.78
383A	D	A3F plug to extension phone jack	8.04	6.03	5.53	4.52	4.02
384A	E	A3M plug to 3-cond. phone jack	7.36	5.52	5.06	4.14	3.68
386A	F	A3F plug to 3-cond. phone plug	7.80	5.85	5.36	4.39	3.90
387A	G	A3M plug to 3-cond. phone plug	6.96	5.22	4.79	3.92	3.48
389	H	A3F plug to A3F plug, shielded	8.28	6.21	5.69	4.66	4.14
390	I	A3M plug to A3M plug, shielded	6.96	5.22	4.79	3.92	3.48
25Y	J	Two male mike conns. to fem. mike conn.	4.12	3.09	2.83	2.32	2.06
330F	K	Two phono jacks to phono plug, shielded	5.28	3.96	3.63	2.97	2.64
330F1	L	Phono plug to two phono jacks, shielded, 4" cable	5.28	3.96	3.63	2.97	2.64
330F2	.....	Phono plug and jack to phono plug, shielded, 4" cable	5.28	3.96	3.63	2.97	2.64
330PJ	M	2 phono jacks to 2-cond. phone plug, shielded	5.60	4.20	3.85	3.15	2.80
330T1	.....	Tini-Plug (9⁄64" dia.) to two phono jacks, 6" long.	6.96	5.22	4.79	3.92	3.48
330T2	.....	Tini-Plug (9⁄64" dia.) to two phono plugs, 6" long	6.40	4.80	4.40	3.60	3.20
330T3	N	Tini-Plug (9⁄64" dia.) to two Tini-Jax (9⁄64" dia.), shielded, 4" long	7.52	5.64	5.17	4.23	3.76
332A	O	Phone jack to female mike conn.	3.72	2.79	2.56	2.09	1.86
336A	P	Phone jack to phono plug, shielded	5.12	3.84	3.52	2.88	2.56
336B	.....	Phone jack to phono jack, shielded	5.12	3.84	3.52	2.88	2.56
340	Q	Two phone jacks to phone plug, shielded	9.24	6.93	6.35	5.20	4.62
345A	R	Phone plug to phono jack	2.48	1.86	1.71	1.40	1.24
349A	S	Phono jack to phono jack, shielded	2.40	1.80	1.65	1.35	1.20
361A	T	Phone jack to phone jack, shielded	4.32	3.24	2.97	2.43	2.16
364A	U	Tini-Jax (9⁄64" dia.) to std. phone plug, shielded	2.88	2.16	1.98	1.62	1.44
365	V	Tini-Jax (9⁄64" dia.) to phono jack, shielded	2.88	2.16	1.98	1.62	1.44
668	W	Stereo selector switch. 3 stereo inputs; 1 stereo output. Phono jacks.	18.60	13.95	12.79	10.46	9.30
670	X	Stereo speaker selector. 2 stereo inputs; 1 stereo output. Switch selects either or both inputs. Screw terminals.	19.96	14.97	13.72	11.23	9.98
CN-11	Y	Shielded 2-cond. Littel-Jax jack for high impedance circuits.	2.04	1.53	1.40	1.15	1.02

SGL WABER® MULTIPLE OUTLET STRIPS

THE COMPACT GROUP

- **Size:** 8 3/4" L. × 2 3/8" W. × 1 1/2" H.
- **Case length (excluding mounting tabs):** 7 7/16"
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Outlets:** "U" ground
- Seamless steel case with baked-on finish
- **Component color:** black
- **Mounting centers:** UL units, 5 13/16"; standard units, 8 1/4"
- **Power cord plug:** molded onto cord
- 608 Series has one outlet on end

602

605CB

Model Number†	No. of Outlets	Master Switch	Pilot Light	Cord Length	Circuit Breaker	Fuse	Shipping Wt., Lbs.	Power Supply Cord	Case Color	Net Each 1-9
602	5	No	No	6′	No	No	1 1/2	16/3HPN	Gray	$13.60
602-15	5	No	No	15′	No	No	2	16/3HPN	Gray	16.60
UL602CB-6*	5	No	No	6′	Yes	No	2	14/3SJT	Blue	20.65
UL602CB-15*	5	No	No	15′	Yes	No	2 1/2	14/3SJT	Blue	24.00
603	4	No	No	6′	No	Yes	1 1/2	16/3HPN	Gray	16.65
603-15	4	No	No	15′	No	Yes	2	16/3HPN	Gray	19.65
603CB	4	No	No	6′	Yes	No	1 1/2	16/3HPN	Gray	17.50
603CB-15	4	No	No	15′	Yes	No	2	16/3HPN	Gray	20.50
UL603CB-6*	4	No	No	6′	Yes	No	2	14/3SJT	Blue	19.60
UL603CB-15*	4	No	No	15′	Yes	No	2 1/2	14/3SJT	Blue	22.90
605CB	3	Yes	Yes	6′	Yes	No	1 1/2	16/3HPN	Gray	20.15
605CB-15	3	Yes	Yes	15′	Yes	No	2	16/3HPN	Gray	23.15
UL605CB-6*	3	Yes	Yes	6′	Yes	No	1 1/2	14/3SJT	Blue	22.25
UL605CB-15*	3	Yes	Yes	15′	Yes	No	2	14/3SJT	Blue	25.55
608CB	4	Yes	Yes	6′	Yes	No	1 1/2	16/3HPN	Gray	21.75
608CB-15	4	Yes	Yes	15′	Yes	No	2	16/3HPN	Gray	24.75
UL608CB-6*	4	Yes	Yes	6′	Yes	No	2	14/3SJT	Blue	23.90
UL608CB-15*	4	Yes	Yes	15′	Yes	No	2 1/2	14/3SJT	Blue	27.25

†Units with the UL prefix are UL listed. *CSA certified.

THE MID-LENGTH GROUP

- **Size:** 13 1/4" L. × 2 3/8" W. × 1 1/2" H.
- **Case length (excluding mounting tabs):** 11 15/16"
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Outlets:** "U" ground
- Seamless steel case with baked-on finish
- **Component colors:** black (32P series have alternating black and white)

15

32PCB

Model Number†	No. of Outlets	No. of Switches	No. of Pilot Lights	Circuit Breaker	Fuse	AC Voltmeter	Power Supply Cord	Cord Length	Shipping Wt., Lbs.	Net Each 1-9
15	7	1	1	No	Yes	No	16/3HPN	6′	2	$28.25
15-15	7	1	1	No	Yes	No	16/3HPN	15′	2 1/2	31.25
15CB	7	1	1	Yes	No	No	16/3HPN	6′	2	29.05
15CB-15	7	1	1	Yes	No	No	16/3HPN	15′	2 1/2	32.05
UL15CB-6*	7	1	1	Yes	No	No	14/3SJT	6′	2 1/2	30.30
UL15CB-15*	7	1	1	Yes	No	No	14/3SJT	15′	3	33.65
17	9	0	0	No	No	No	16/3HPN	6′	2	20.75
17-15	9	0	0	No	No	No	16/3HPN	15′	2 1/2	23.75
UL17CB-6	9	0	0	Yes	No	No	14/3SJT	6′	2 1/2	28.55
UL17CB-15	9	0	0	Yes	No	No	14/3SJT	15′	3	31.90
18	9	0	0	No	No	No	16/3HPN	6′	2	19.75
18-15	9	0	0	No	No	No	16/3HPN	15′	2 1/2	22.75
UL18CB-6	9	0	0	Yes	No	No	14/3SJT	6′	2 1/2	29.90
UL18CB-15	9	0	0	Yes	No	No	14/3SJT	15′	3	33.25
24	6	1	1	No	Yes	No	16/3HPN	6′	2	25.65
24-15	6	1	1	No	Yes	No	16/3HPN	15′	2 1/2	28.65
24CB	6	1	1	Yes	No	No	16/3HPN	6′	2	26.40
24CB-15	6	1	1	Yes	No	No	16/3HPN	15′	2 1/2	29.40
UL24CB-6*	6	1	1	Yes	No	No	14/3SJT	6′	2 1/2	28.15
UL24CB-15*	6	1	1	Yes	No	No	14/3SJT	15′	3	31.50
24MCB-6	6	1	0	Yes	No	Yes	16/3HPN	6′	2	41.00
24MCB-15	6	1	0	Yes	No	Yes	16/3HPN	15′	2 1/2	44.30
32PCB	4	4	4	Yes	No	No	16/3HPN	6′	2	38.75
32PCB-15	4	4	4	Yes	No	No	16/3HPN	15′	2 1/2	41.75
UL32PCB-6*	4	4	4	Yes	No	No	14/3SJT	6′	2 1/2	40.75
UL32PCB-15*	4	4	4	Yes	No	No	14/3SJT	15′	3	44.05

†Units with the UL prefix are UL listed; 15 and 17 series have one outlet on end; 32P series have each outlet controlled by a switch with built-in pilot light. *CSA certified.

THE PREMIER GROUP

- UL listed
- All have circuit breakers
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Outlets:** "U" ground duplex, beige
- Seamless steel case with baked-on beige finish
- **Power supply cord:** 14/3SJT with molded plug, beige
- Switched models have a beige switch housing with amber pilot light

ULA6TME

ULA4E

ULA4TME

Model Number	No. of Outlets	Master Switch	Dimensions Length	Dimensions Width	Dimensions Height	Mtg. Centers	Cord Length	Shipping Wt., Lbs.	Net Each 1-9
ULA4E-6	4	No	9 1/4"	2 3/8"	1"	8 1/4"	6′	2	$19.75
ULA4E-15	4	No	9 1/4"	2 3/8"	1"	8 1/4"	15′	2 1/2	23.05
ULA4TME-6	4	Yes	9 1/4"	2 3/8"	1"	8 1/4"	6′	2	23.30
ULA4TME-15	4	Yes	9 1/4"	2 3/8"	1"	8 1/4"	15′	2 1/2	26.65
ULA6E-6	6	No	12"	2 3/8"	1"	10 15/16"	6′	2 1/2	24.65
ULA6E-15	6	No	12"	2 3/8"	1"	10 15/16"	15′	2 1/2	28.00
ULA6TME-6	6	Yes	12"	2 3/8"	1"	10 15/16"	6′	2 1/2	28.30
ULA6TME-15	6	Yes	12"	2 3/8"	1"	10 15/16"	15′	2 1/2	31.65

SGL WABER® MULTIPLE OUTLET STRIPS

THE DELUXE GROUP

- **Case size:** 13 7/16" L. × 4 1/4" W. × 1 1/2" H. (excluding mounting tabs shortens length by 1")
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Protection:** all have circuit breakers
- **Case:** fabricated steel with baked-on finish
- **Component colors:** black except as noted below

25PCB

800CB

Model Number†	No. of Outlets	Master Switch†	Individual Outlets		Power Supply Cord	Cord Length	Mounting Centers	Shipping Wt., Lbs.	Net Each 1-9
			Switched	Pilot Light					
25CB	7	Yes	Yes	No	16/3HPN	6′	13 1/8" × 2 7/8"	3	$50.25
25CB-15	7	Yes	Yes	No	16/3HPN	15′	13 1/8" × 2 7/8"	3 1/2	53.25
UL25CB-6*	7	Yes	Yes	No	14/3SJT	6′	10 11/16" × 2 3/4"	3	52.80
UL25CB-15*	7	Yes	Yes	No	14/3SJT	15′	10 11/16" × 2 3/4"	4	56.15
25PCB	7	Yes	Yes	Yes	16/3HPN	6′	13 1/8" × 2 7/8"	3	64.40
25PCB-15	7	Yes	Yes	Yes	16/3HPN	15′	13 1/8" × 2 7/8"	3 1/2	67.40
UL25PCB-6*	7	Yes	Yes	Yes	14/3SJT	6′	10 11/16" × 2 3/4"	3	66.40
UL25PCB-15*	7	Yes	Yes	Yes	14/3SJT	15′	10 11/16" × 2 3/4"	4	69.70
800CB	10	Yes	No	No	16/3HPN	6′	13 1/8" × 2 7/8"	3	38.75
800CB-15	10	Yes	No	No	16/3HPN	15′	13 1/8" × 2 7/8"	3 1/2	41.75
UL800CB-6	10	Yes	No	No	14/3SJT	6′	10 11/16" × 2 3/4"	3	41.05
UL800CB-15	10	Yes	No	No	14/3SJT	15′	10 11/16" × 2 3/4"	4	44.40

†Units with the UL prefix are UL listed; 25 and 25P series have alternating black and white switch and outlet configurations; 25 and 25P series have individual outlets, 800 series have 5 duplex outlets. *CSA certified. ‡With built-in pilot light.

THE TRIM-LINE GROUP

- **Outlets:** "U" ground
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Component color:** black
- **Power cord plug:** molded onto cord

7208

Model Number	No. of Outlets	Overall Dimensions			Case Color	Mounting Centers	Supply Cord	Switch & Pilot Light	Circuit Breaker	Cord Length	Shipping Wt., Lbs.	Net Each 1-9
		Length	Width	Height								
7208	8	25 1/6"	2"	1"	Gray	24 11/16"	16/3HPN	Yes	No	6′	3 1/4	$30.25
7208-15	8	25 1/6"	2"	1"	Gray	24 11/16"	16/3HPN	Yes	No	15′	4	33.25
UL7208-6	8	25 1/6"	2"	1"	Blue	22 15/16"	14/3SJT	Yes	Yes	6′	3 1/2	40.50
UL7208-15	8	25 1/6"	2"	1"	Blue	22 15/16"	14/3SJT	Yes	Yes	15′	4 1/2	43.80
7408	8	49 1/16"	1 1/2"	1 3/8"	Gray	48 3/4"	16/3HPN	No	No	6′	4 1/2	37.25
7408-15	8	49 1/16"	1 1/2"	1 3/8"	Gray	48 3/4"	16/3HPN	No	No	15′	5	40.25
UL7408-6*	8	49 1/16"	1 1/2"	1 3/8"	Blue	46 15/16"	14/3SJT	Yes	Yes	6′	4 1/2	47.75
UL7408-15*	8	49 1/16"	1 1/2"	1 3/8"	Blue	46 15/16"	14/3SJT	Yes	Yes	15′	5 1/4	51.05
7415	15	49 1/16"	1 1/2"	1 3/8"	Gray	48 3/4"	16/3HPN	No	No	6′	4 1/4	45.40
7415-15	15	49 1/16"	1 1/2"	1 3/8"	Gray	48 3/4"	16/3HPN	No	No	15′	5	48.40
UL7415-6	15	49 1/16"	1 1/2"	1 3/8"	Blue	46 15/16"	14/3SJT	Yes	Yes	6′	4 1/2	55.05
UL7415-15	15	49 1/16"	1 1/2"	1 3/8"	Blue	46 15/16"	14/3SJT	Yes	Yes	15′	5 1/4	59.40
7610	10	73 1/16"	1 1/2"	1 3/8"	Gray	72 3/4"	16/3HPN	No	No	6′	6 1/2	46.50
7610-15	10	73 1/16"	1 1/2"	1 3/8"	Gray	72 3/4"	16/3HPN	No	No	15′	7 1/4	49.50
UL7610-6	10	73 1/16"	1 1/2"	1 3/8"	Blue	70 15/16"	14/3SJT	Yes	Yes	6′	6 3/4	57.15
UL7610-15	10	73 1/16"	1 1/2"	1 3/8"	Blue	70 15/16"	14/3SJT	Yes	Yes	15′	7 1/2	60.50
7619	19	73 1/16"	1 1/2"	1 3/8"	Gray	72 3/4"	16/3HPN	No	No	6′	6 1/2	55.90
7619-15	19	73 1/16"	1 1/2"	1 3/8"	Gray	72 3/4"	16/3HPN	No	No	15′	7 1/4	58.90
U17619-6	19	73 1/16"	1 1/2"	1 3/8"	Blue	70 15/16"	14/3SJT	Yes	Yes	6′	6 3/4	66.55
UL7619-15	19	73 1/16"	1 1/2"	1 3/8"	Blue	70 15/16"	14/3SJT	Yes	Yes	15′	7 1/2	69.90

†Units with the UL prefix are UL listed. *CSA certified.

THE CONSOLE GROUP

- UL listed
- **Case:** wood-grained vinyl permanently adhered to metal; heavy steel base with baked-on black finish
- **Outlets:** black "U" ground outlets on back of unit
- **Switches:** each outlet controlled by a single switch with built-in pilot light; alternate black and white switches
- **Power supply cord:** 14/3 SJT with molded plug; black
- **Protection:** all equipped with circuit breakers
- **Maximum rating:** 15 A, 125 VAC, 60 Hz, 1875 W continuous duty
- **Mounting:** four protective rubber feet—no provisions for mounting by fastening

UL95CB

UL96CB

Model Number	No. of Outlets	No. of Switches*	Overall Dimensions			Cord Length	Shipping Wt., Lbs.	Net Each 1-9
			Length	Width	Height			
UL95CB-6	4	4	7 1/2"	2 3/4"	2 3/4"	6′	4	$40.30
UL95CB-15	4	4	7 1/2"	2 3/4"	2 3/4"	15′	5	43.65
UL96CB-6	6	6	9 1/4"	2 3/4"	2 3/4"	6′	4	51.50
UL96CB-15	6	6	9 1/4"	2 3/4"	2 3/4"	15′	5	54.80
UL97CB-6	8	8	11"	2 3/4"	2 3/4"	6′	4	62.05
UL97CB-15	8	8	11"	2 3/4"	2 3/4"	15′	5	66.20

*With built-in pilot light.

90° DESIGN GROUP

- UL listed
- **Protection:** All have circuit breakers, gray color
- **Maximum Rating:** 15 A, 125 VAC, 60 Hz, 1875 W, continuous duty
- **Outlets:** "U" ground, black
- Seamless steel case with baked-on blue finish
- **Power supply cord:** 14/3 SJT with molded-on plug, black
- Master switch, black; pilot light lens, white

Model Number	No. of Outlets	Size, Inches			Mounting Centers	Cord Length	Shipping Wt., Lbs.	Net Each 1-9
		Length	Width	Height				
UL24RA-6	6	13 1/4	2 5/16	1 1/2	10 5/16"	6′	2 1/2	$28.15
UL24RA-15	6	13 1/4	2 5/16	1 1/2	10 5/16"	15′	3	31.50

SGL WABER® Power Line Conditioners

POWER MASTER™ LINE MONITOR POWER CONDITIONERS

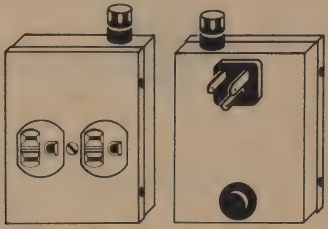
Solid-state electronic plug-in devices, whether they be a simple calculator, an expensive instrument, or a computer system, are subject to very hostile environments caused by electrical disturbances coming through the utility power lines that feed them, or generated by electrical equipment within a building. Usually, the solution to this problem has been the installation of a "dedicated" or separate power line to the wall receptacle that powers the sensitive equipment. Even with this expensive installation, equipment damage, memory failure, erroneous data input and output caused by thunderstorms, equipment switching, and other "electrical pollution," are still common occurrences.

Power Master Line Monitor Power Conditioners eliminate the requirement of a separate, dedicated, branch circuit. They have the latest solid-state technology. Most models have multi-stage filter networks, continuous voltage spike protection, RFI, EMI, and EMP noise rejection, anti-ground loop design, shielded power cords, and more, all in one package. Your equipment can work without interruption even when the power conditioner is dissipating a high voltage spike. Also, all models have an easily replaceable 15 amp fuse in the rare case of a voltage spike that exceeds the design limits of the power conditioner.

Power Master Line Monitor Power Conditioners protect against spike damage by filtering both the hot line and the neutral line. In addition, the filter is bidirectional—it dissipates both incoming spikes and outgoing spikes created by your equipment.

The **Power Master** filter system is passive—it operates only when a voltage spike occurs. When a spike is sensed, the **Power Master** instantaneously clamps or reduces the over-voltage to a level that is safe for use by your equipment. The spike, depending upon its voltage and the design of your **Power Master,** is harmlessly dissipated, either in the form of heat, through the grounding system, or both. All noise-protected models have a three-stage passive noise filter system—a high frequency filter and a low frequency filter that operate in the transverse mode, the common mode, or both. The high and low frequency filters overlap to give double protection in the mid-range frequencies where it is needed the most.

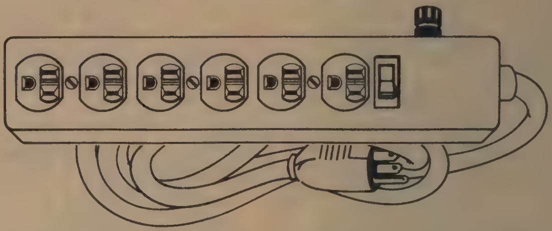
MODEL LM 1100



Model LM 1100 is a wall plug-in unit designed for use at the wall receptacle. Ready to use—just plug it in. Provides one "U" ground duplex outlet accommodating two plugs. Contains one metal-oxide varistor for spike protection. Case is steel with baked-on black finish; fuse holder and outlets are also black. Measures 4 1/8" × 3 1/4" × 1 5/16". Weighs just 1 1/2 lbs. **Max. Spike Energy Dissipation:** 50 joules one time, 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 6000 volts. **Clamping Spike Voltage:** 325 volts. **Surge Current Clamping Ratio:** No greater than 2.03:1. **Max. Spike Current:** 2000 amps. **Clamping Response Time:** 10 nanoseconds or less. **Environment:** For indoor use in dry location.

Model LM 1100 Power Line Conditioner—Net Each **$43.55**

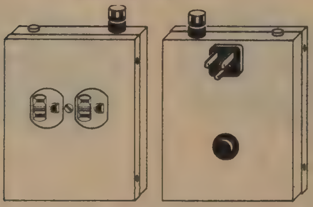
MODEL LM 1200



The Model LM 1200 is a strip type power line conditioner with 3 "U" ground duplex outlets accomodating 6 plugs. Contains 3 metal-oxide varistors for isolated spike protection. Case is steel with baked-on beige finish; outlets, power cord, and illuminated master switch are also beige, while fuse holder is black. Measures 11 15/16" × 2 5/16" × 1" and weighs just 2 lbs. Mounts by means of keyhole slots on 10 15/16" centers. Power cord is 14/3 SJT 9 feet long. **Max. Spike Energy Dissipation:** 50 joules one time, 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 6000 volts. **Clamping Spike Voltage:** 325 volts. **Surge Current Clamping Ratio:** No greater than 2.03:1. **Max. Spike Current:** 2000 amps. **Clamping Response Time:** 10 nanoseconds or less. **Environment:** For indoor use in dry locations.

Model LM 1200 Power Line Conditioner—Net Each **$65.35**

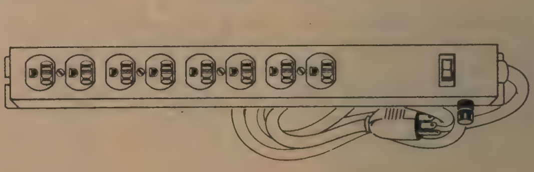
MODEL LM 2100



The Model LM 2100 is a wall plug-in unit designed for use at the wall receptacle. Ready to use—just plug it in. Provides one "U" ground duplex outlet for two plugs. Unit contains six-stage filter network providing isolated voltage spike and noise protection for each outlet. Case is steel with baked-on black finish; outlets and fuse holder are also black. Measures 5 1/2" × 4 1/2" × 1 5/16" and weighs 4 lbs. **Max. Spike Energy Dissipation:** 50 joules one time. 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 7000 volts. **Clamping Spike Voltage:** 225 volts. **Max. Spike Current:** 2000 amps. **Surge Current Clamping Ratio:** No greater than 1.5:1. **Clamping Response Time:** 10 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 20 to 40 dB (volt ratio). **Noise Protection:** Transverse mode. **Environment:** For indoor use in dry locations.

Model LM 2100 Power Line Conditioner—Net Each **$90.80**

MODEL LM 2200

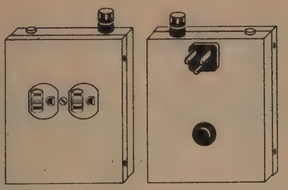


The Model LM 2200 is an outlet strip type power line conditioner providing 8 outlets, each of which has isolated spike protection. A six-stage filter network provides voltage spike and noise protection. Case is steel with baked-on beige finish; the outlets, power cord, and illuminated master on-off switch are also beige and the fuse holder is black. Unit measures 20" × 2" × 1" and weighs 6 lbs. Power cord is 14/3 SJT 9 feet long. Mounts by means of end slots on 19 3/4" centers. **Max. Spike Energy Dissipation:** 50 joules one time, 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 7000 volts. **Clamping Spike Voltage:** 225 volts. **Max. Spike Current:** 2000 amps. **Surge Current Clamping Ratio:** No greater than 1.5:1. **Clamping Response Time:** 10 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 20 to 40 dB (volt ratio). **Noise Protection:** Transverse mode. **Environment:** For indoor use in dry locations.

Model LM 2200 Power Line Conditioner—Net Each **$136.25**

SGL WABER® Power Line Conditioners

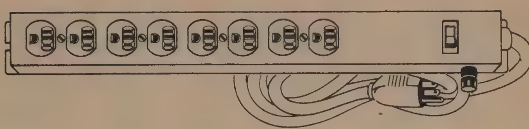
MODEL LM 3100



The Model LM 3100 is a wall plug-in unit designed for use at wall receptacle. Provides two hospital-grade outlets with isolated spike protection. A six-stage filter network provides voltage spike and noise protection. Case is steel with baked-on beige finish; outlts are also beige—fuse holder is black. Unit measures 5 1/2″ × 4 1/2″ × 1 5/16″ and weighs 5 lbs. **Max. Spike Energy Dissipation:** 50 joules one time, 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 7000 volts. **Clamping Spike Voltage:** 225 volts. **Surge Current Clamping Ratio:** No greater than 1.5:1. **Max. Spike Current:** 2000 amps. **Clamping Response Time:** 10 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 20 to 40 dB (volt ratio). **Noise Protection:** Transverse and common modes. **Leakage Current:** Leakage to ground lead does not exceed 10 microamperes. **Environment:** For indoor use in dry locations.

Model LM 3100 Power Line Conditioner—Net Each **$136.25**

MODEL LM 3200



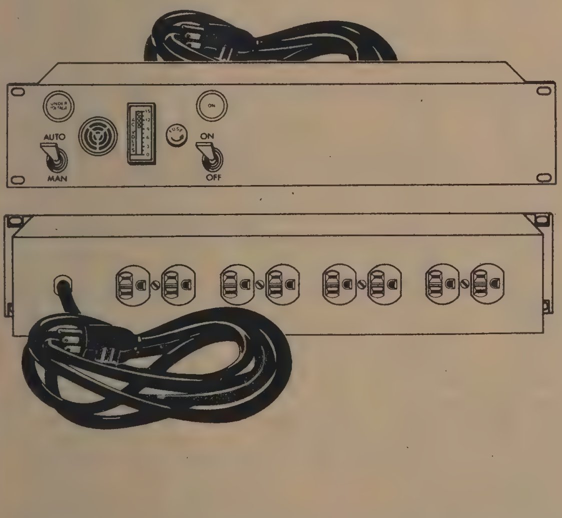
Model LM 3200 is a strip type power line conditioner providing 8 outlets. A six-stage filter network provides voltage spike and noise protection. Each outlet has isolated grounding and isolated spike protection. Case is steel with baked-on beige finish; the hospital-grade outlets are ivory, shielded power cord is black, master on-off switch has black housing and amber illumination, fuse holder is black. Unit measures 20″ × 2″ × 1″ and weighs 7 lbs. **Max. Spike Energy Dissipation:** 50 joules one time, 25 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 7000 volts. **Clamping Spike Voltage:** 225 volts. **Max. Spike Current:** 2000 amps. **Surge Current Clamping Ratio:** No greater than 1.5:1. **Clamping Response Time:** 10 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 20 to 40 dB (volt ratio). **Shielded Power Cord Attenuation:** Up to 60 dB. **Noise Protection:** Transverse and common modes. **Leakage Current:** Leakage to ground lead does not exceed 10 microamperes. **Environment:** For indoor use in dry locations.

Model LM 3200 Power Line Conditioner—Net Each **$227.20**

LM 4000 SERIES

Models LM 4100 and LM 4200 offer the best spike protection with the highest overvoltage handling capability and the quickest response time. The series also offers the best noise suppression in both the common and transverse modes. Both models have RFI-shielded power cords and isolated, hospital-grade, double-wipe, grounding outlets for additional protection against noise. Included in both models is an AC voltmeter with color-coded scale to visually indicate that an undervoltage condition exists. An undervoltage sensing and warning system is also included. When the incoming line voltage drops to 105 volts or less, the warning system, consisting of a red light and a buzzer, will activate. If the low voltage is still within the operating range of the equipment, the operator can then choose to shut off the buzzer by means of a cutoff switch. The red pilot light, however, remains on, acting as a constant reminder until the line undervoltage is corrected.

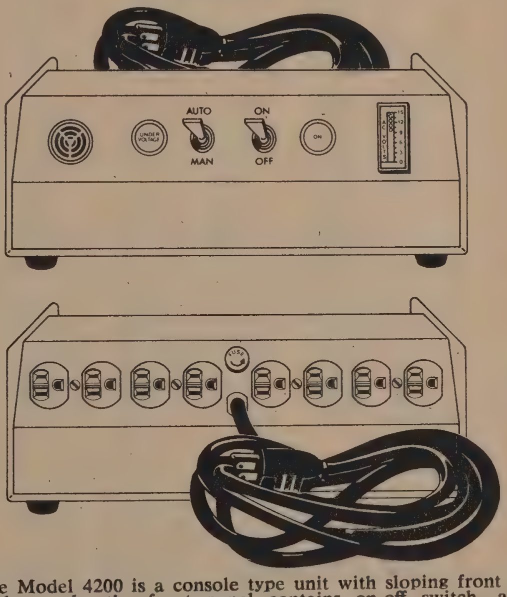
MODEL LM 4100



The Model LM 4100 is designed for rack or panel mounting with end slots on 18 1/4″ × 3″ centers. Eight hospital-grade, "U" ground outlets are provided on the back of the unit. The front of the unit contains the master on-off switch, voltmeter, auto-manual switch, warning buzzer, and warning light. Case is steel with baked-on black enamel finish; front cover is spun aluminum, outlets are ivory, power cord is black, switches are black, on indicator light is green, and undervoltage indicator light is red. A seven-stage filter network provides voltage spike and noise protection with each outlet having isolated spike protection. Front plate measures 19″ long × 3 15/32″ wide; the back cover measures 17″ long × 3 11/32″ wide × 2 3/8″ deep. Unit weighs 15 lbs. **Max. Spike Energy Dissipation:** 300 joules one time, 150 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 10,000 volts. **Clamping Spike Voltage:** ±20 volts as it appears on the sine wave; 190 volts, max. **Max. Spike Current:** 6000 amps. **Surge Current Clamping Ratio:** No greater than 1.63:1. **Clamping Response Time:** 5 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 40 to 60 dB (volt ratio). **Shielded Power Cord Attenuation:** Up to 60 dB. **Noise Protection:** Transverse and common modes. **Leakage Current:** Leakage to ground lead does not exceed 10 microamperes. **Environment:** For indoor use in dry locations.

Model LM 4100 Power Line Conditioner—Net Each **$654.45**

MODEL LM 4200

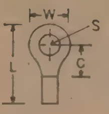


The Model 4200 is a console type unit with sloping front and back panels; the front panel contains on-off switch, auto-manual switch, voltmeter, "on" indicator light, undervoltage indicator light, and warning buzzer. The back panel contains 8 outlets and a fuse holder. The eight outlets are hospital-grade, "U" ground type. Each has isolated spike protection. Case is steel with woodgrain vinyl finish; outlets are ivory, power cord is black, switches are black, "on" indicator light is green, warning indicator light is red. A seven-stage filter network provides voltage spike and noise protection. Unit measures 13 1/2″ long × 4 1/8″ wide × 4 7/8″ high and weighs 15 lbs. **Max. Spike Energy Dissipation:** 300 joules one time, 150 joules with repeated usage, self-restoring. **Max. Spike Voltage:** 10,000 volts. **Clamping Spike Voltage:** ±20 volts as it appears on the sine wave; 190 volts, max. **Max. Spike Current:** 10,000 amps. **Surge Current Clamping Ratio:** No greater than 1.63:1. **Clamping Response Time:** 5 nanoseconds or less. **Noise Rejection Frequency Range:** 1 kHz to 100 MHz. **Attenuation:** 40 to 60 dB (volt ratio). **Shielded Power Cord Attenuation:** Up to 60 dB. **Mode Noise Protection:** Transverse and common. **Leakage Current:** Leakage to ground lead does not exceed 10 microamperes. **Environment:** For indoor use in dry locations.

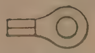
Model LM 4200 Power Line Conditioner—Net Each **$681.75**

waldom Solderless Terminals & Connectors

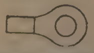
Solderless terminals and connectors, manufactured by Hollingsworth, are constructed of the finest materials; annealed electrolytic copper and electro-tin plated. One-piece construction, internally serrated with chamfered edges. Hollingsworth NIT Series (Waldom S-1000) Non-Insulated Terminals make positive connections, save labor, provide uniformly reliable connections. Hollingsworth FIT Series (Waldom T-2000) is produced with molded vinyl insulator with a funneled wire entry and flared for greatest efficiency. Hollingsworth FIIG Series (Waldom N-5000) is produced with copper sleeve to grip insulation tightly and nylon insulating outer sleeve. Hollingsworth NIT-B Series (Waldom B-3000) is identical to the S-1000 Series, but has a brazed seam on the barrel for increased vibration resistance. UL and CSA listed.



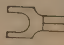
Basic Dimensions



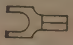
Non-Insulated Butted Seam



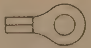
Non-Insulated Brazed Seam



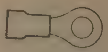
Block Spade



Flanged Block Spade



Ring Tongue



Insulated

Dimensions, Ins.			Non-Insulated					Insulated						
			Butted Seam		Brazed Seam			Vinyl			Nylon			
Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★ Price Code
RING TONGUE TERMINALS														
26-22 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION														
0	.14	.17	R26201	S-1925	...	...	.41	R26211N	T-2925	.60	XR26241N	N-5925	.68	A
2	.14	.17	R26202	S-1926	...	...	.41	R26212N	T-2926	.60	XR26242N	N-5926	.68	A
4	.20	.22	R26203	S-1929	...	...	.50	R26213N	T-2929	.68	XR26243N	N-5929	.76	A
6	.20	.22	R26204	S-1930	...	...	.50	R26214N	T-2930	.68	XR26244N	N-5930	.76	A
6	.25	.29	R26205	S-1951	...	...	.59	R26215N	T-2951	.77	XR26245N	N-5951	.86	A
8	.25	.29	R26206	S-1932	...	...	.59	R26216N	T-2932	.77	XR26246N	N-5932	.86	A
8	.32	.29	R26208	S-1952	...	...	.62	R26218N	T-2952	.80	XR26248N	N-5952	.88	A
10	.25	.29	R26207	S-1933	...	...	.59	R26217N	T-2938	.77	XR26247N	N-5933	.86	A
10	.32	.29	R26209	S-1953	...	...	.62	R26219N	T-2953	.80	XR26249N	N-5953	.88	A
22-16 WIRE RANGE/STANDARD BARREL LENGTH/RED INSULATION														
2	.22	.16	R4103	S-1099	R4103B	B-3099	.55	R4140F	T-2099	.80	XR1879SN	SN-5099	.82	A
4	.22	.16	R4104	S-1047	R4104B	B-3047	.55	R4141F	T-2047	.80	XR1880SN	SN-5047	.82	A
4	.28	.32	R4261	S-1096	R4261B	B-3096	.73	R4265F	T-2096	.98	XR1856SN	SN-5096	1.00	A
6	.22	.16	R4105	S-1001	R4105B	B-3001	.55	R4142F	T-2001	.80	XR1881SN	SN-5001	.82	A
6	.25	.32	R4110	S-1700	R4110B	B-3700	.73	R4147F	T-2700	.97	XR1885SN	SN-5700	.98	A
6	.28	.32	R4262	S-1002	R4262B	B-3002	.73	R4266F	T-2002	.98	XR1857SN	SN-5002	.99	A
8	.22	.16	R4193	S-1097	R4193B	B-3097	.54	R4206F	T-2097	.80	XR1882SN	SN-5097	.82	A
8	.28	.32	R4263	S-1021	R4263B	B-3021	.73	R4267F	T-2021	.98	XR1858SN	SN-5021	1.00	A
8	.31	.32	R4111	S-1701	R4111B	B-3701	.75	R4148F	T-2701	1.00	...	SN-5701	1.05	A
10	.28	.32	R4264	S-1098	R4264B	B-3098	.73	R4268F	T-2098	.98	XR1859SN	SN-5098	1.00	A
10	.31	.32	R4112	S-1003	R4112B	B-3003	.75	R4149F	T-2003	1.00	...	SN-5003	.99	A
¼	.47	.44	R4113	S-1004	R4113B	B-3004	.94	R4150F	T-2004	1.20	XR1894SN	SN-5004	1.23	B
16-14 WIRE RANGE/STANDARD BARREL LENGTH/BLUE INSULATION														
2	.25	.16	R3301	S-1102	R3301B	B-3102	.55	R3311F	T-2102	.80	...	...	.79	A
4	.25	.16	R4119	S-1048	R4119B	B-3048	.55	R4157F	T-2048	.80	XR2441SN	SN-5048	.79	A
6	.25	.16	R4120	S-1006	R4120B	B-3006	.55	R4158F	T-2006	.80	XR2442SN	SN-5006	.79	A
6	.25	.37	R61002G	S-1007	R61002GB	B-3007	.78	R61005GF	T-2007	1.01	XX61006GSN	SN-5007	1.02	A
6	.31	.28	R4121	S-1092	R4121B	B-3092	.71	R4159F	T-2092	.96	XR1901SN	SN-5092	.98	A
6	.31	.37	R4121G	S-1198	R4121GB	B-3198	.80	R4159GF	T-2198	1.01	XR1901GSN	SN-5198	1.06	A
8	.31	.28	R4122	S-1024	R4122B	B-3024	.71	R4160F	T-2024	.96	XR1902SN	SN-5024	.98	A
8	.31	.37	R4122G	S-1093	R4122GB	B-3093	.80	R4160GF	T-2093	1.01	XR1902GSN	SN-5093	1.06	A
10	.31	.28	R4123	S-1008	R4123B	B-3008	.71	R4161F	T-2008	.96	XR1903SN	SN-5008	.98	A
10	.31	.37	R4123G	S-1094	R4123GB	B-3094	.80	R4161GF	T-2094	1.01	XR1903GSN	SN-5094	1.06	A
¼	.46	.44	R4124	S-1009	R4124B	B-3009	.94	R4162F	T-2009	1.19	XR1906SN	SN-5009	1.20	B
12-10 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION														
4	.28	.27	R3454	S-1148	R3454B	B-3148	.68	R4182F	T-2148	.98	XR5105N	N-5148	1.00	D
6	.28	.27	R3455	S-1149	R3455B	B-3149	.68	R4183F	T-2149	.98	XR5106N	N-5149	1.00	D
6	.31	.27	R3453	S-1586	R3453B	B-3586	.70	R4188F	T-2586	.98	XR5118N	N-5586	1.02	D
6	.37	.28	R3456	S-1049	R3456B	B-3049	.74	R4168F	T-2049	1.04	XR5107N	N-5049	1.05	D
8	.28	.27	R3452	S-1150	R3452B	B-3150	.68	R4189F	T-2150	.98	XR5113N	N-5150	1.00	D
8	.37	.28	R2994	S-1050	R2994B	B-3050	.74	R4169F	T-2050	1.04	XR5108N	N-5050	1.06	D
10	.37	.28	R3457	S-1011	R3457B	B-3011	.74	R4170F	T-2011	1.04	XR5109N	N-5011	1.06	D
¼	.52	.47	R3458	S-1100	R3458B	B-3100	1.00	R4171F	T-2100	1.30	XR5110N	N-5100	1.32	E
FLANGED BLOCK SPADE TERMINALS														
22-16 WIRE RANGE/STANDARD BARREL LENGTH/RED INSULATION														
2	.18	.19	SF20746	S-1592	SF20746B	B-3592	.60	SF20740F	T-2592	.83	...	...	...	A
2	.29	.19	SF20747	S-1593	SF20747B	B-3593	.60	SF20741F	T-2593	.83	...	...	...	A
4	.29	.19	SF20748	S-1125	SF20748B	B-3125	.60	SF20742F	T-2125	.83	...	...	...	A
6	.29	.19	SF20749	S-1080	SF20749B	B-3080	.60	SF20752F	T-2080	.83	...	...	...	A
8	.29	.19	SF20750	S-1081	SF20750B	B-3081	.60	SF20753F	T-2081	.83	...	...	...	A
10	.29	.19	SF20751	S-1082	SF20751B	B-3082	.63	SF20754F	T-2082	.83	...	...	...	A
22-16 WIRE RANGE/SHORT BARREL LENGTH/RED INSULATION														
2	.18	.19	SF20746S	SS-1592	SF20746SB	SB-3592	.51	SF20740SF	ST-2592	.79	XSF2559SN	SN-5592	.77	A
2	.29	.19	SF20747S	SS-1593	SF20747SB	SB-3593	.51	SF20741SF	ST-2593	.79	XSF2560SN	SN-5593	.77	A
4	.29	.19	SF20748S	SS-1125	SF20748SB	SB-3125	.51	SF20742SF	ST-2125	.79	XSF2561SN	SN-5125	.77	A
6	.29	.19	SF20749S	SS-1080	SF20749SB	SB-3080	.51	SF20752SF	ST-2080	.79	XSF2562SN	SN-5080	.77	A
8	.29	.19	SF20750S	SS-1081	SF20750SB	SB-3081	.51	SF20753SF	ST-2081	.79	XSF2498SN	SN-5081	.77	A
10	.29	.19	SF20751S	SS-1082	SF20751SB	SB-3082	.54	SF20754SF	ST-2082	.79	XSF2499SN	SN-5082	.77	A
16-14 WIRE RANGE/STANDARD BARREL LENGTH/BLUE INSULATION														
6	.29	.19	SF20855	S-1083	SF20855B	B-3083	.60	SF20858F	T-2083	.83	...	...	...	A
8	.29	.19	SF20856	S-1084	SF20856B	B-3084	.60	SF20859F	T-2084	.83	...	...	...	A
10	.29	.19	SF20857	S-1085	SF20857B	B-3085	.60	SF20860F	T-2085	.83	...	...	...	A
16-14 WIRE RANGE/SHORT BARREL LENGTH/BLUE INSULATION														
6	.29	.19	SF20855S	SS-1083	SF20855SB	SB-3083	.51	SF20858SF	ST-2083	.79	XSF20861SN	SN-5083	.77	A
8	.29	.19	SF20856S	SS-1084	SF20856SB	SB-3084	.51	SF20859SF	ST-2084	.79	XSF20862SN	SN-5084	.77	A
10	.29	.19	SF20857S	SS-1085	SF20857SB	SB-3085	.51	SF20860SF	ST-2085	.79	XSF20863SN	SN-5085	.77	A
12-10 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION														
6	.38	.25	SF22451	S-1722	SF22451B	B-3722	.74	SF20268F	T-2722	1.03	XSF2508N	N-5722	1.06	D
8	.38	.25	SF22453	S-1723	SF22453B	B-3723	.74	SF20269F	T-2723	1.03	XSF2509N	N-5723	1.06	D
10	.38	.25	SF22456	S-1724	SF22456B	B-3724	.74	SF20270F	T-2724	1.03	XSF2510N	N-5724	1.06	D

LISTING CONTINUED ON NEXT PAGE. ★FOR PRICES, SEE PRICE CODE TABLE ON NEXT PAGE.

SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST

SOLDERLESS CONNECTORS AND TERMINALS (CONTINUED)

MINI-SPRING SPADE TERMINALS

22-18 WIRE RANGE/STANDARD BARREL LENGTH/RED INSULATION

Dimensions, Ins. Stud S	Dimensions, Ins. Width W	Dimensions, Ins. Clearance C	Non-Insulated Butted Seam Hollingsworth NIT No.	Non-Insulated Butted Seam Waldom Equiv. No.	Non-Insulated Brazed Seam Hollingsworth NIT-B No.	Non-Insulated Brazed Seam Waldom Equiv. No.	Lgth., L	Insulated Vinyl Hollingsworth FIT No.	Insulated Vinyl Waldom Equiv. No.	Insulated Vinyl Lgth., L	Insulated Nylon Hollingsworth FIIG No.	Insulated Nylon Waldom Equiv. No.	Insulated Nylon Lgth., L	★Price Code
2	.18	.21	SS22482	S-1355	SS22482B	B-3355	.56	SS22492F	T-2355	.85	XSS22504N	N-5355	.83	C
4	.25	.26	SS22465	S-1356	SS22465B	B-3356	.55	SS22495F	T-2356	.84	XSS22505N	N-5356	.83	C
5	.25	.26	SS22466	S-1357	SS22466B	B-3357	.55	SS22496F	T-2357	.84	XSS22506N	N-5357	.83	C
6	.25	.26	SS22467	S-1358	SS22467B	B-3358	.55	SS22497F	T-2358	.84	XSS22507N	N-5358	.83	C
8	.28	.26	SS22468	S-1359	SS22468B	B-3359	.55	SS22498F	T-2359	.84	XSS22508N	N-5359	.83	C
10	.33	.26	SS22469	S-1360	SS22469B	B-3360	.59	SS22499F	T-2360	.88	XSS22509N	N-5360	.83	C

16-14 WIRE RANGE/STANDARD BARREL LENGTH/BLUE INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
5	.25	.26	SS22470	S-1361	SS22470B	B-3361	.55	SS22530F	T-2361	.84	XSS22540N	N-5361	.83	C
6	.25	.26	SS22471	S-1362	SS22471B	B-3362	.55	SS22531F	T-2362	.84	XSS22541N	N-5362	.83	C
8	.28	.26	SS22472	S-1363	SS22472B	B-3363	.55	SS22532F	T-2363	.84	XSS22542N	N-5363	.83	C
10	.33	.26	SS22473	S-1364	SS22473B	B-3364	.59	SS22533F	T-2364	.88	XSS22543N	N-5364	.87	C

12-10 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
5	.25	.26	SS22474	S-1365	SS22474B	B-3365	.64	SS22564F	T-2365	.95	XSS22574N	N-5365	.97	F
6	.25	.26	SS22475	S-1366	SS22475B	B-3366	.64	SS22565F	T-2366	.95	XSS22575N	N-5366	.97	F
8	.28	.26	SS22476	S-1367	SS22476B	B-3367	.64	SS22566F	T-2367	.95	XSS22576N	N-5367	.97	F
10	.33	.26	SS22477	S-1368	SS22477B	B-3368	.69	SS22567F	T-2368	1.01	XSS22577N	N-5368	1.03	F

STANDARD SPRING SPADE TERMINALS

22-18 WIRE RANGE/STANDARD BARREL LENGTH/RED INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.25	.26	SS20923S	S-1345	SS20923SB	B-3345	.67	SS20927SF	T-2345	.95	XSS20937SN	N-5345	.93	C
6	.28	.26	SS20924S	S-1346	SS20924SB	B-3346	.67	SS20928SF	T-2346	.95	XSS20938SN	N-5346	.93	C
8	.28	.26	SS20925S	S-1347	SS20925SB	B-3347	.67	SS20929SF	T-2347	.95	XSS20939SN	N-5347	.93	C
10	.33	.26	SS20926S	S-1348	SS20926SB	B-3348	.67	SS20930SF	T-2348	.95	XSS20940SN	N-5348	.93	C

16-14 WIRE RANGE/STANDARD BARREL LENGTH/BLUE INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.28	.26	SS20889S	S-1349	SS20889SB	B-3349	.67	SS20947SF	T-2349	.95	XSS20954SN	N-5349	.93	C
8	.28	.26	SS20890S	S-1350	SS20890SB	B-3350	.67	SS20948SF	T-2350	.95	XSS20955SN	N-5350	.93	C
10	.33	.26	SS20891S	S-1351	SS20891SB	B-3351	.67	SS20949SF	T-2351	.95	XSS20956SN	N-5351	.93	C

12-10 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.31	.26	SS20828	S-1352	SS20828B	B-3352	.78	SS20832F	T-2352	1.09	XSS20836N	N-5352	1.11	F
8	.31	.26	SS20829	S-1353	SS20829B	B-3353	.78	SS20833F	T-2353	1.09	XSS20837N	N-5353	1.11	F
10	.33	.26	SS20830	S-1354	SS20830B	B-1354	.78	SS20834F	T-2354	1.09	XSS20838N	N-5354	1.11	F

BLOCK SPADE TERMINALS

22-16 WIRE RANGE/STANDARD BARREL LENGTH/RED INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.30	.19	BS41162	S-1014	BS41162B	B-3014	.58	BS41542F	T-2014	.81	....	....	...	A
6	.24	.32	BS41163	S-1118	BS41163B	B-3118	.72	BS41543F	T-2118	.95	....	....	...	A
8	.30	.19	BS41172	S-1030	BS41172B	B-3030	.58	BS41552F	T-2030	.81	....	....	...	A
10	.30	.19	BS41182	S-1032	BS41182B	B-3032	.58	BS41562F	T-2032	.81	....	....	...	A
10	.30	.32	BS41183	S-1505	BS41183B	B-3505	.72	BS41563F	T-2505	.95	....	....	...	A

22-16 WIRE RANGE/SHORT BARREL LENGTH/RED INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.30	.19	BS41162S	SS-1014	BS41162SB	SB-3014	.49	BS41542SF	ST-2014	.77	XBS24042SN	SN-5014	.75	A
6	.24	.32	BS41163S	SS-1118	BS41163SB	SB-3118	.63	BS41543SF	ST-2118	.91	XBS24043SN	SN-5118	.89	A
8	.30	.19	BS41172S	SS-1030	BS41172SB	SB-3030	.49	BS41552SF	ST-2030	.77	XBS20532SN	SN-5030	.75	A
10	.30	.19	BS41182S	SS-1032	BS41182SB	SB-3032	.49	BS41562SF	ST-2032	.77	XBS20542SN	SN-5032	.75	A
10	.30	.32	BS41183S	SS-1505	BS41183SB	SB-3505	.63	BS41563SF	ST-2505	.91	XBS20543SN	SN-5505	.89	A

16-14 WIRE RANGE/STANDARD BARREL LENGTH/BLUE INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
4	.22	.38	BS41270	S-1121	BS41270B	B-3121	.76	BS41650F	T-2121	.99	....	....	...	A
6	.30	.19	BS41272	S-1015	BS41272B	B-3015	.58	BS41652F	T-2015	.81	....	....	...	A
6	.25	.38	BS41273	S-1123	BS41273B	B-3123	.83	BS41653F	T-2123	1.06	....	....	...	A
8	.30	.19	BS41282	S-1033	BS41282B	B-3033	.58	BS41662F	T-2033	.81	....	....	...	A
10	.31	.38	BS41278	S-1016	BS41278B	B-3016	.90	BS41658F	T-2016	1.13	....	....	...	A
10	.30	.19	BS41292	S-1702	BS41292B	B-3702	.58	BS41672F	T-2702	.81	....	....	...	A

16-14 WIRE RANGE/SHORT BARREL LENGTH/BLUE INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
4	.22	.38	BS41270S	SS-1121	BS41270SB	SB-3121	.67	BS41650SF	ST-2121	.95	XBS20579SN	SN-5121	.93	A
6	.30	.19	BS41272S	SS-1015	BS41272SB	SB-3015	.49	BS41652SF	ST-2015	.77	XBS20582SN	SN-5015	.75	A
6	.25	.38	BS41273S	SS-1123	BS41273SB	SB-3123	.73	BS41653SF	ST-2123	1.01	XBS20583SN	SN-5123	1.01	A
8	.30	.19	BS41282S	SS-1033	BS41282SB	SB-3033	.49	BS41662SF	ST-2033	.77	XBS20592SN	SN-5033	.75	A
10	.31	.38	BS41278S	SS-1016	BS41278SB	SB-3016	.80	BS41658SF	ST-2016	1.08	XBS20588SN	SN-5016	1.07	A
10	.30	.19	BS41292S	SS-1702	BS41292SB	SB-3702	.49	BS41672SF	ST-2702	.77	XBS20602SN	SN-5702	.75	A

12-10 WIRE RANGE/STANDARD BARREL LENGTH/YELLOW INSULATION

Stud S	Width W	Clearance C	Hollingsworth NIT No.	Waldom Equiv. No.	Hollingsworth NIT-B No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIT No.	Waldom Equiv. No.	Lgth., L	Hollingsworth FIIG No.	Waldom Equiv. No.	Lgth., L	★Price Code
6	.31	.27	BS29952	S-1589	BS29952B	B-3589	.67	BS41742F	T-2589	.98	XBS25872N	N-5589	1.01	D
6	.31	.27	BS29953	S-1706	BS29953B	B-3706	.76	BS41743F	T-2706	1.06	XBS25873N	N-5706	1.08	D
8	.31	.27	BS34782	S-1590	BS34782B	B-3590	.67	BS41752F	T-2590	.98	XBS25882N	N-5590	1.01	D
8	.31	.27	BS34783	S-1707	BS34783B	B-3707	.76	BS41753F	T-2707	1.06	XBS25883N	N-5707	1.08	D
10	.31	.27	BS34792	S-1591	BS34792B	B-3591	.67	BS41762F	T-2591	.98	XBS25892N	N-5591	1.01	D
10	.31	.27	BS34793	S-1708	BS34793B	B-3708	.76	BS41763F	T-2708	1.06	XBS25893N	N-5708	1.08	D

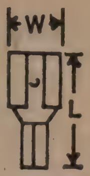
★PRICE CODES

Price Code	Waldom S-1000 Series Hollingsworth NIT Series Net/100 100-999	Waldom S-1000 Series Hollingsworth NIT Series Net/1000 1000-4999	Waldom S-1000 Series Hollingsworth NIT Series Net/1000 5000 Up	Waldom B-3000 Series Hollingsworth NIT-B Series Net/100 100-999	Waldom B-3000 Series Hollingsworth NIT-B Series Net/1000 1000-4999	Waldom B-3000 Series Hollingsworth NIT-B Series Net/1000 5000 Up	Waldom T-2000 Series Hollingsworth FIT Series Net/100 100-999	Waldom T-2000 Series Hollingsworth FIT Series Net/1000 1000-4999	Waldom T-2000 Series Hollingsworth FIT Series Net/1000 5000 Up	Waldom N-5000 Series Hollingsworth FIIG Series Net/100 100-999	Waldom N-5000 Series Hollingsworth FIIG Series Net/1000 1000-4999	Waldom N-5000 Series Hollingsworth FIIG Series Net/1000 5000 Up
A	$5.20	$34.00	$25.50	$ 7.20	$47.60	$35.70	$11.30	$74.50	$55.90	$15.50	103.00	$ 77.20
B	7.90	52.10	39.10	9.76	64.51	48.41	14.50	96.10	72.10	18.40	122.00	91.50
C	5.30	35.20	26.40	8.41	55.92	41.91	12.00	79.60	59.70	16.30	108.10	81.10
D	7.70	50.60	38.00	10.80	71.60	53.70	14.30	94.70	71.10	19.80	131.50	98.70
E	8.90	58.70	44.00	12.15	80.80	60.65	15.90	105.50	79.10	21.30	141.40	106.10
F	8.00	53.00	39.80	11.68	77.69	58.30	14.90	98.50	73.90	20.50	135.90	101.90

SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST

waldom Solderless Terminals & Connectors

Female Slip-Ons



Basic Dimensions

Male Slip-Ons

STANDARD FEMALE SLIP-ONS

Tab Size Ins.	Non-Insulated				Insulated						★ Price Code
					Vinyl			Nylon			
	Dimen. E Ins.	Hollingsworth NIT Number	Waldom Equiv. Number	Lgth. L Ins.	Hollingsworth FIT Number	Waldom Equiv. Number	Lgth. L Ins.	Hollingsworth FIIG Number	Waldom Equiv. Number	Lgth L Ins.	
26-24 WIRE RANGE/YELLOW INSULATION											
.125 x .032	.250	S074718S	SS-1726	.50	S074830SFN	ST-2726	.68	XS074914SN	SN-5726	.76	A
.187 x .020	.250	S09202S	SS-1750	.59	S09204SFN	ST-2750	.77	XS09207SN	SN-5750	.85	AS
.187 x .032	.250	S09197S	SS-1751	.59	S09199SFN	ST-2751	.77	XS09200SN	SN-5751	.85	AS
.205 x .020	.250	S09192S	SS-1752	.59	S09194SFN	ST-2752	.77	XS09195SN	SN-5752	.85	AS
.205 x .032	.250	S09186S	ST-1753	.59	S09188SFN	ST-2753	.77	XS09189SN	SN-5753	.85	AS
.250 x .032	.300	S09181S	ST-1754	.64	S09183SFN	ST-2754	.82	XS09184SN	SN-5754	.90	AS
22-18 WIRE RANGE/RED INSULATION											
.110 x .020	.250	S01120S	SS-1755	.50	S01121SF	ST-2755	.78	XS01122SN	SN-5755	.76	A
.110 x .032	.250	S01130S	SS-1756	.50	S01131SF	ST-2756	.78	XS01132SN	SN-5756	.76	A
.125 x .020	.250	S09466S	SS-1757	.50	S012616SF	ST-2757	.78	XS012626SN	SN-5757	.76	A
.125 x .032	.250	S09470S	SS-1758	.50	S012620SF	ST-2758	.78	XS012630SN	SN-5758	.76	A
.187 x .020	.250	S09604S	SS-1759	.59	S09619SF	ST-2759	.87	XS09624SN	SN-5759	.85	AS
.187 x .032	.250	S09602S	SS-1760	.59	S09617SF	ST-2760	.87	XS00622SN	SN-5760	.85	AS
.205 x .020	.250	S09603S	SS-1761	.59	S09618SF	ST-2761	.87	XS09623SN	SN-5761	.85	AS
.205 x .032	.250	S09601S	SS-1762	.59	S09616SF	ST-2762	.87	XS09621SN	SN-5762	.85	AS
.250 x .032	.300	S09600S	SS-1727	.64	S09615SF	ST-2727	.92	XS09620SN	SN-5727	.90	AS
16-14 WIRE RANGE/BLUE INSULATION											
.110 x .020	.250	S01137S	SS-1763	.50	S01125SF	ST-2763	.78	XS01139SN	SN-5763	.76	A
.110 x .032	.250	S01144S	SS-1764	.50	S01135SF	ST-2764	.78	XS01146SN	SN-5764	.76	A
.125 x .020	.250	S09741S	SS-1186	.50	S012646SF	ST-2186	.78	XS012656SN	SN-5186	.76	A
.125 x .032	.250	S09745S	SS-1728	.50	S012650SF	ST-2728	.78	XS012660SN	SN-5728	.76	A
.187 x .020	.250	S09704S	SS-1187	.59	S09722SF	ST-2187	.87	XS09727SN	SN-5187	.86	AS
.187 x .032	.250	S09702S	SS-1765	.59	S09720SF	ST-2765	.87	XS09725SN	SN-5765	.86	AS
.205 x .020	.250	S09703S	SS-1766	.59	S09721SF	ST-2766	.87	XS09726SN	SN-5766	.86	AS
.205 x .032	.250	S09701S	SS-1767	.59	S09719SF	ST-2767	.87	XS09724SN	SN-5767	.86	AS
.250 x .032	.300	S09700S	SS-1090	.64	S09718SF	ST-2090	.92	XS09723SN	SN-5090	.91	AS
16-12 WIRE RANGE/BLUE INSULATION											
.250 x .032	.300	....	SS-1188	.64	....	ST-2188	.74	....	....	..	AT
12-10 WIRE RANGE/YELLOW INSULATION											
.250 x .032	.300	S09300	S-1768	.72	S09301F	T-2768	1.04	XS09302N	N-5768	1.06	B

†Not manufactured by Hollingsworth.

STANDARD MALE SLIP-ONS

Tab Size Ins.	Dimen. E Ins.	Hollingsworth NIT Number	Waldom Equiv. Number	Lgth. L Ins.	Hollingsworth FIT Number	Waldom Equiv. Number	Lgth. L Ins.	Hollingsworth FIIG Number	Waldom Equiv. Number	Lgth L Ins.	★ Price Code
22-18 WIRE RANGE/RED INSULATION											
.110 x .020	.280	S09418S	SS-1770	.57	S09446SF	ST-2770	.86	XS09452SN	SN-5770	.85	A
.187 x .020	.250	S09416S	SS-1771	.54	S09444SF	ST-2771	.83	XS09450SN	SN-5771	.82	A
.187 x .032	.250	S09104S	SS-1772	.62	S09110SF	ST-2772	.90	XS09115SN	SN-5772	.88	A
.187 x .032	.250	S09104	S-1773	.71	S09110F	T-2773	.97	....	....	...	A
.205 x .020	.250	S09417S	SS-1774	.54	S09445SF	ST-2774	.83	XS09451SN	SN-5774	.82	A
.205 x .032	.250	S09105S	SS-1775	.62	S09112SF	ST-2775	.90	XS09116SN	SN-5775	.88	A
.205 x .032	.250	S09105	S-1776	.71	S09112F	T-2776	.97	....	....	...	A
.250 x .032	.312	S09106S	SS-1777	.67	S09113SF	ST-2777	.95	XS09117SN	SN-5777	.93	A
.250 x .032	.312	S09106	S-1778	.76	S09113F	T-2778	1.02	....	....	...	A
16-14 WIRE RANGE/BLUE INSULATION											
.110 x .020	.280	S09352S	SS-1780	.57	S09382SF	ST-2780	.86	XS09392SN	SN-5780	1.03	A
.187 x .020	.250	S09350S	SS-1190	.54	S09380SF	ST-2190	.83	XS09390SN	SN-5190	.80	A
.187 x .032	.250	S09118S	SS-1781	.62	S09124SF	ST-2781	.90	XS09126SN	SN-5781	.87	A
.187 x .032	.250	S09118	S-1782	.71	S09124F	T-2782	.97	....	....	...	A
.205 x .020	.250	S09351S	SS-1783	.54	S09381SF	ST-2783	.83	XS09391SN	SN-5783	.80	A
.205 x .032	.250	S09119S	SS-1784	.62	S09125SF	ST-2784	.90	XS09127SN	SN-5784	.87	A
.205 x .032	.250	S09119	S-1785	.71	S09125F	T-2785	.97	....	....	...	A
.250 x .032	.312	S09004S	SS-1089	.67	S09014SF	ST-2089	.95	XS09024SN	SN-5089	.93	A
.250 x .032	.312	S09003	S-1786	.76	S09013F	T-2786	.97	....	....	...	A

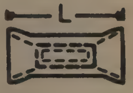
FULLY INSULATED FEMALE SLIP-ONS

Tab Size Ins.	Lgth., L Ins.	Hollingsworth FIIG Number	Waldom Equiv. Number	Price Code
26-24 WIRE RANGE/YELLOW INSULATION				
.110 x .020	.72	XS09762S	SN-5600	BF
.110 x .020	.72	XS09761S	SN-5601	BF
.110 x .032	.72	XS09764S	SN-5602	BF
.110 x .032	.72	XS09763S	SN-5603	BF
.187 x .020	.90	XS09765	N-5604	BG
.187 x .032	.90	XS09766	N-5605	BG
.205 x .020	.90	XS09767	N-5606	BG
.205 x .032	.90	XS09768	N-5607	BG
.250 x .032	.92	XS09769	N-5608	BG
22-18 WIRE RANGE/RED INSULATION				
.110 x .020	.71	XS09770S	SN-5609	BF
.110 x .020	.71	XS09771S	SN-5610	BF
.110 x .032	.71	XS09772S	SN-5611	BF
.110 x .032	.71	XS09773S	SN-5612	BF
.187 x .020	.90	XS09774	N-5613	BG
.187 x .032	.90	XS09775	N-5614	BG

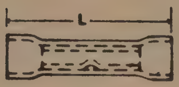
Tab Size Ins.	Lgth., L Ins.	Hollingsworth FIIG Number	Waldom Equiv. Number	Price Code
22-18 WIRE RANGE/RED INSULATION (Cont'd)				
.205 x .020	.90	XS09776	N-5615	BG
.205 x .032	.90	XS09777	N-5616	BG
.250 x .032	.92	XS09778	N-5617	BG
16-14 WIRE RANGE/BLUE INSULATION				
.110 x .020	.71	XS09779S	SN-5618	BF
.110 x .020	.71	XS09780S	SN-5619	BF
.110 x .032	.71	XS09781S	SN-5620	BF
.110 x .032	.71	XS09782S	SN-5621	BF
.187 x .020	.90	XS09783	N-5622	BG
.187 x .032	.90	XS09784	N-5623	BG
.205 x .020	.90	XS09785	N-5624	BG
.205 x .032	.90	XS09786	N-5625	BG
.250 x .032	.92	XS09787	N-5626	BG
12-10 WIRE RANGE				
.250 x .032	.99	XS09788	N-5627	AU

★FOR PRICES, SEE PRICE CODE TABLE ON NEXT PAGE

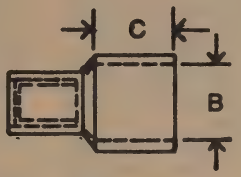
waldom Solderless Terminals & Connectors



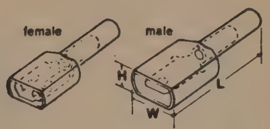
Parallel Connectors



Butt Connectors



Pig-Tail Connectors



Insulated Nylon Couplers

			Non-Insulated					Insulated					
			Butted Seam		Brazed Seam			Vinyl		Nylon			
Wire Range	Mat'l Thck., Ins.	Color	Hollings-worth NIT Number	Waldom Equiv. Number	Hollings-worth NIT-B Number	Waldom Equiv. Number	Lgth. L Ins.	Hollings-worth FIT Number	Waldom Equiv. Number	Hollings-worth FIIG Number	Waldom Equiv. Number	Lgth. L Ins.	★ Price Code
PARALLEL CONNECTORS													
26-22	.020	Yellow	P4019	S-1950	....	....	.21	P4020	T-2950	....	N-5950	.27	T
22-16	.032	Red	P4130	S-1105	P4130B	B-3105	.33	P4132	T-2105	P4131BN	N-5105	.76	F
16-14	.032	Blue	P4137	S-1063	P4137B	B-3063	.33	P4134	T-2063	P4133BN	N-5063	.76	F
12-10	.040	Yellow	P4138	S-1064	P4138B	B-3064	.33	P4136	T-2064	P4135BN	N-5064	.83	U
8	......	......	....	....	P1100*	B-3260	.38	P1110F*	T-2260	P1110N*	N-5260	1.05	R
6	......	......	....	....	P1200*	B-3261	.45	P1210F*	T-2261	P1210N*	N-5261	1.19	S
4	......	......	....	....	P1300*	B-3262	.54	P1310F*	T-2262	P1310N*	N-5262	1.41	V
2	......	......	....	....	P1401*	B-3303	.65	P1411F*	T-2303	P1411N*	N-5303	1.64	W
1/0	......	......	....	....	P1500*	B-3321	.74	....	....	....	....	......	X
2/0	......	......	....	....	P1600*	B-3336	.74	....	....	....	....	......	Z
3/0	......	......	....	....	P1700*	B-3338	.77	....	....	....	....	......	G
4/0	......	......	....	....	P1800*	B-3340	.79	....	....	....	....	......	Y
BUTT CONNECTORS													
22-18	.032	Red	B1818	S-1019	B1818B	B-3019	.58	B4070	T-2019	B4067BN	N-5019	1.04	H
16-14	.032	Blue	B1819	S-1020	B1819B	B-3020	.58	B4071	T-2020	B4068BN	N-5020	1.04	H
12-10	.040	Yellow	B2151	S-1046	B2151B	B-3046	.74	B4072	T-2046	B4069BN	N-5046	1.23	I
8	......	Red	....	....	B0100B	B-3263	.77	B0110BF	T-2263	B0110BN	N-5263	1.45	J
6	......	Blue	....	....	B0200B	B-3264	1.02	B0210BF	T-2264	B0210BN	N-5264	1.86	K
4	......	Yellow	....	....	B0300*	B-3265	1.15	B0310F	T-2265	B0310N	N-5265	2.03	L
2	......	Red	....	....	B0401*	B-3304	1.28	B0411F	T-2304	B0411N	N-5304	2.38	M
1/0	......	......	....	....	B0500*	B-3320	1.43	....	....	....	....	......	N
2/0	......	......	....	....	B0600*	B-3337	1.46	....	....	....	....	......	O
3/0	......	......	....	....	B0700*	B-3339	1.48	....	....	....	....	......	P
4/0	......	......	....	....	B0800*	B-3341	1.49	....	....	....	....	......	Q

*Seamless, produced from tubular stock.

NYLON INSULATED PIGTAIL CONNECTORS

Wire Range	Dimens., Ins. B	Dimens., Ins. C	Insert	Plat-ing	Hollings-worth FIT Number	Waldom Equiv. Number	★ Price Code
22-14	.28	.19	Copper	Tin	NP5115	CE-2214	BW
18-10	.40	.27	Copper	Tin	NP5670	CE-1610	BX
18-8	.49	.38	Copper	Tin	NP5671	CE-1808	BY

NYLON INSULATED COUPLERS

Wire Range	Type	Tab Size, Ins.	Ins. Color	Hollings-worth FIT Number	Waldom Equiv. Number	★ Price Code
22-18	Male	.250 x .032	Red	S05078	N-5628	BH
22-18	Female	.250 x .032	Red	S05077	N-5629	BH
16-14	Male	.250 x .032	Blue	S05076	N-5630	BH
16-14	Female	.250 x .032	Blue	S05075	N-5631	BH

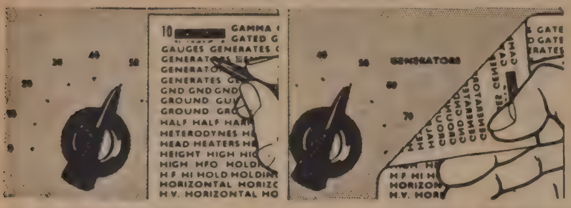
★PRICE CODES

	Waldom S-1000 Series Hollingsworth NIT Series			Waldom B-3000 Series Hollingsworth NIT-B Series			Waldom T-2000 Series Hollingsworth FIT Series			Waldom N-5000 Series Hollingsworth FIIG Series		
	Net/100	Net/1000		Net/100	Net/1000		Net/100	Net/1000		Net/100	Net/1000	
Price Code	100-999	1000-4999	5000 Up	100-999	1000-4999	5000 Up	100-999	1000-4999	5000 Up	100-999	1000-4999	5000 Up
A	$ 5.80	$38.20	$28.70	.....	.....	.....	$11.50	$76.20	$57.20	$18.10	$120.30	$90.30
B	11.20	74.40	55.80	.....	.....	.....	19.30	128.00	96.00	23.94	158.91	119.15
F	4.80	31.50	23.60	$ 6.60	$ 43.60	$ 32.70	10.80	71.60	53.70	12.40	82.20	61.60
G	.....	.....	.....	71.23	609.64	507.98	.....	.....	.....	.....	.....	.....
H	5.70	37.60	28.20	8.90	58.80	44.10	13.10	87.10	65.30	16.50	109.30	82.00
I	9.00	59.90	44.90	12.49	82.93	62.27	18.00	119.40	89.60	20.10	133.30	100.00
J	.....	.....	.....	27.70	184.20	138.20	44.90	298.00	223.50	43.40	288.30	216.30
K	.....	.....	.....	48.11	319.22	239.36	62.10	412.80	309.60	60.70	403.50	302.60
L	.....	.....	.....	85.40	567.85	425.77	100.60	668.61	501.46	102.52	681.08	510.84
M	.....	.....	.....	105.31	699.81	524.79	131.51	873.70	655.30	131.51	873.79	655.37
N	.....	.....	.....	63.79	546.53	455.38	.....	.....	.....	.....	.....	.....
O	.....	.....	.....	67.60	579.40	482.80	.....	.....	.....	.....	.....	.....
P	.....	.....	.....	81.00	694.10	578.40	.....	.....	.....	.....	.....	.....
Q	.....	.....	.....	99.85	855.32	712.79	.....	.....	.....	.....	.....	.....
R	.....	.....	.....	14.97	99.05	74.28	29.30	194.20	145.70	27.90	185.10	138.80
S	.....	.....	.....	29.53	196.16	147.12	43.84	291.27	218.50	42.29	280.78	210.61
T	4.80	31.50	23.60	6.60	43.60	32.70	9.30	61.80	46.40	24.58	162.86	122.15
U	6.10	40.40	30.30	8.86	58.76	44.09	11.00	72.90	54.70	16.44	108.88	81.66
V	.....	.....	.....	67.91	450.50	337.76	66.15	439.83	329.84	66.25	439.73	329.90
W	.....	.....	.....	91.77	610.28	457.61	109.83	730.33	547.75	111.96	743.94	558.03
X	.....	.....	.....	44.80	383.99	320.00	.....	.....	.....	.....	.....	.....
Y	.....	.....	.....	80.07	686.30	571.91	.....	.....	.....	.....	.....	.....
Z	.....	.....	.....	49.86	426.93	355.76	.....	.....	.....	.....	.....	.....
AS	6.20	40.90	30.70	.....	.....	.....	12.30	81.30	61.00	19.10	126.80	95.10
AT	6.59	43.24	32.43	.....	.....	.....	16.00	106.10	79.60	.....	.....	.....
AU	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.90	172.10	129.10
BF	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.00	125.90	94.40
BG	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.90	132.30	99.20
BH	.....	.....	.....	.....	.....	.....	16.70	111.00	83.30	.....	.....	.....
BW	.....	.....	.....	.....	.....	.....	7.50	49.60	37.20	.....	.....	.....
BX	.....	.....	.....	.....	.....	.....	11.10	73.60	55.20	.....	.....	.....
BY	.....	.....	.....	.....	.....	.....	20.40	135.30	101.50	.....	.....	.....

SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST

DATAK MARKING AND P. C. ETCHING KITS

DRY TRANSFERS FOR PANELS, METERS AND CIRCUIT BOARDS



To Use: Shade Word **Then: Lift Sheet**

Words, letters, numbers and symbols transfer to all clean surfaces with a rub of a ballpoint pen. No special tools required. Use on metal, paper, paint, plastic, wood or glass. Protect panels with DATAKOAT; makes prototypes look like production equipment.

TITLES FOR ELECTRONIC EQUIPMENT

Set contains 24 sheets (3″ x 5″) with thousands of preset ⅛″ high words from "AC" to "ZOOMS". Meets 95% of all electronic needs. Set also includes ⅛″ letters and numbers for special titles.
Datak No. 9581 (Black) or 9591 (White)—Net per Set. . . **$9.95**
Datak No. 9621 (Black) or 9631 (White) Numbers Set—Contains 12 sheets of numbers only. Net per Set. **$5.00**
Datak No. 9601 (Black) or 9611 (White) Alphabet Set—Contains 12 sheets of letters only. Net per Set. **$5.00**

TERMINAL AND CHASSIS MARKING SET

Contains 24 sheets (3″ x 5″) with standard USASI component designation letters (R, L, C, Q, U, etc.) as well as sheets of consecutive numerals from 1 to 227, all in ⅛″ size.
Datak No. 9661 (Black) or 9671 (White)—Net per Set. **$9.95**
Datak No. JD-244 Consecutive Numbers Set—Contains 24 sheets (2″ x 10″) of black numbers only. Net per Set. **$10.00**

METER DIAL AND SWITCH MARKING SET

Design special meter dials and switch patterns with lines, arcs, graduations, letters and numbers, in black, white and red. Set contains 12 sheets in large, 5″ x 7″ size.
Datak No. 968 Meter Dial and Switch Marking Set—
Net per Set. **$9.95**
No. 968 Refills—4 sheets of a number per set (all one color). Specify sheet number. Net per Set. **$4.95**

DATAMARK SETS

Each set consists of 6 sheets for lettering on electronic equipment.

Datak No.		Description
Black	**White**	
K58B	**K58W**	Audio, TV, hi-fi
K59B	**K59W**	Amateur Radio, CB
K60B	**K60W**	Experimenter, Home, Intercom
K61B	**K61W**	Test Equipment, Industrial
K62		Marks and switch patterns—black, white asst.
K63		⅛″ Alphabets and Numerals—blk/wht/gld asst.
K64		¼″ Alphabets and Numerals—blk/wht/gld asst.
K65		½″ Alphabets and Numerals—blk/wht/gld asst.

Any Model Listed—Net Each. **$2.50**

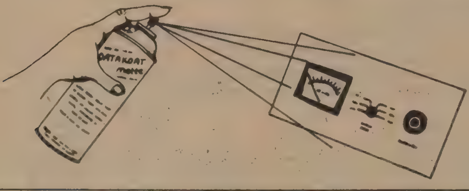
SPECIALTY SYMBOL SETS

Do camera-ready art for schematics, manuals, slides, proposals and block diagrams. Clean, opaque; black only.
Datak No. 970 Electronic Symbol Drafting Set—Contains 40 large sheets (5″ x 7″) of schematic and block diagram symbols. Uniform .020″ line width. Conforms to USASI—Y 32.2 or industry practice. Set includes designation numbers in ⅛″ size. Net per Set. **$32.00**
No. 970 Refills—4 sheets of a number per set. Specify sheet number. Net per Set. **$4.95**
Datak No. 971 Logic Diagram Symbol Set—Full-size logic symbols according to USASI—Y 32.14. Set contains 8 assorted 5″ x 7″ sheets. Net per Set. **$7.50**
No. 971 Refills—4 sheets of a number per set. Specify sheet number. Net per Set. **$4.95**

Datak Half-Size Logic Symbols—JotDraft Series. All rub down fast. Can be picked up and repositioned. Line width, .015″. Sets contain 24 sheets, size 2″ x 10″.
Datak No. JD-113—"OR, NOR"
Datak No. JD-114—"AND, NAND"
Datak No. JD-115—Flip-flops, function blocks
Datak No. JD-116—Inverters, registers
Datak No. JD-117—Amplifiers
Net Each, any of above. **$10.00**

Datak No. 972 Chemical Symbol Set—12 sheets (5″ x 7″) include benzene rings, indan, napthalene, anthracene, cyclo, bicyclo, steroid and other structures. Set also contains elements, radicals, brackets, reaction arrows, etc. Net per Set. **$9.95**
No. 972 Refills—4 sheets of a number per set. Specify sheet number. Net per Set. **$4.95**

DATAKOAT PROTECTIVE COATING



Special plasticized acrylic resin for metal, plastic and painted surfaces. Protects DATAK dry transfers on surfaces subject to abrasion. Dried film is tough and perfectly clear. Dry to the touch in 10 minutes. Contains no fluorocarbons.

Datak No. 04176 Liquid Resin—1 oz., brush-in-bottle. Thinner included. Net per Set. **$2.35**

Datak No. 04177 Gloss Spray—12 oz. aerosol spray can.
Net Each. **$4.25**

Datak No. 04178 Matte Spray—12 oz. aerosol spray can.
Net Each. **$4.25**

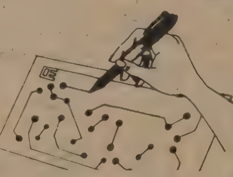
DIRECT ETCH AND PHOTO ETCH PRINTED CIRCUIT PRODUCTS

JotDraft extra tough plastic ink is the direct etch resist used in these handy P.C. etch kits and refills.

Datak No. ER-1 Direct Etch Kit—For experimenters or lab technicians. Everything needed for making precision circuit boards: 4 copper-clad boards, 8 sheets assorted direct-etch dry transfer patterns (donuts, lines, nesting circles, jogs, DIPs, flat-packs, TO-5 and most other IC and transistor patterns), 2 rolls resist tape, 1 pint-size ferric chloride etchant, etch tray and complete instructions. Net per Kit. **$8.95**

Datak No. ER-2 Direct Etch Resist Refill Kit—Includes 8 sheets (3″ x 5″) donuts, lines, nesting circles, jogs, DIPs, flatpacks, TO-5 and most other IC and transistor patterns. Kit also contains 1 roll each of $\frac{1}{16}$″ and $\frac{1}{32}$″ etch resist tape. All withstand ferric chloride and most other etch systems. Net per Kit. **$5.75**
Datak No. ER-3 Dry Concentrated Etchant—Anhydrous ferric chloride in ¼ lb. bag; makes 1 pint of solution.
Net Each. **$2.50**
Datak Photocopy Film for Pos-Neg® System. Polyester base film to make positive or negative from opaque or translucent artwork in one step. Expose with yellow filter to obtain positive image from positive original; expose with yellow filter, then white light to obtain negative. Use photoflood lamp to expose.
Datak No. ER-5—5″ x 6″ film. Net per 6 sheets. **$5.95**
Datak No. ER-9—8″ x 11″ film. Net per 2 sheets. **$5.95**
Datak No. ER-6 Film Developer and Fixer—Chemicals needed to make 1 pint lithographic film developer and 1 pint acid fixer. Handles up to 15 sheets 5″ x 6″ photocopy film. Net Ea. . . . **$2.95**
Datak No. ER-71 Photo Resist Liquid—Photopolymer solution with pump spray. Areas exposed through negative are hardened and become etch resistant. Will coat 1700 sq. ins. Use with ER-8 Developer. Net Each. **$6.95**
Datak No. ER-8 Resist Developer—Solvent to develop resist pattern on board and wash off unexposed resist. Use with ER-71 Spray Resist. 16 fl. oz. Net Each. **$3.95**
Datak No. ER-13—Same as ER-2, but with 4 sheets assorted donuts only; $\frac{1}{16}$″ through ¼″ diameter. Net per Kit. **$2.75**
Datak No. ER-14—Same as ER-2, but with 4 sheets DIPs and flatpacks only. Net per Kit. **$2.75**

ETCH RESIST PEN



Felt tip etch resist pen, filled with ink that is impervious to water-based etch solutions. Just write on copper-clad board, then etch.

Datak No. ER-15 Etch Resist Pen—Net Each. **$1.80**

Datak No. ER-10 Contact Exposing Kit—Includes 9″ x 10″ frame for exposing larger sized artwork and circuit boards, yellow filter, glass, backboard and illustrations. Net Each. **$12.95**
Datak No. ER-11 Copper Clad Circuit Boards—Includes 1 each 5″ x 6″ and 3″ x 4½″, 1 oz. copper-clad phenolic board. Net per 2 boards. **$3.95**
Datak No. ER-12 Power Etch Pump—Circulates etch solution around boards; speeds etch rate and eliminates need for hand agitation. Includes air pump, distributor tube and coupling hose. Net Each. **$7.25**

Datak No. ER-4 Photo Etch Kit—For experimenters or lab technicians. Kit makes 1X artwork masters, film negatives, film positives; sensitizes copper-clad boards; develops and etches resist patterns. Unique, patented Pos-Neg® system copies art from a magazine page without destroying original. No darkroom needed; work in subdued room light. Kit contains 5″ x 6″ print frame, yellow filter, 4 sheets copy film, developer, fixer, spray etch resist, 2 copper-clad boards, resist developer, 2 sheets (8½″ x 11″) layout film, $\frac{1}{16}$″ and $\frac{1}{32}$″ P.C. tape, 8 sheets direct etch (dry transfer) circuit patterns, 1 pint size ferric chloride etchant and instruction book. Net per Kit. **$34.95**
Datak No. ER-18 TINNIT™ Electroless Tin Plate—A dry chemical to dissolve in water. Deposits a bright, solderable tin plate on clean copper circuit boards or parts. One package plates up to 600 sq. ins. Net Each. **$3.50**

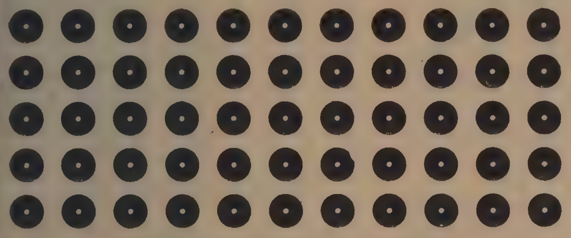
DATAK Drafting Aids & Tapes

JOTDRAFT AND MICROSERIES DRAFTING AIDS AND TAPES

Entirely new dry transfer concept. Patterns with plastic overcoat transfer as a unit; can be picked up and repositioned like diecut stick-ons. Use with ordinary P.C. tapes; see listing. Edge card connector patterns and donuts have no plastic carrier but use a rugged plastic ink; are good etch resists.

Datak No. JDE-2X—Set of 770 donuts, ICs, transistors and connector patterns for 2X art masters. Net per Set........**$6.95**

Datak No. JDE-1X—Same as JDE-2X but contains 1559 1X sized patterns. Net per Set..**$6.95**



PC Donuts On Precision .200″ x .300″ Centers—Use as IC patterns or rub down singly. For PC art or as direct etch resist.

Datak No.	Qty./ Set	OD x ID (Inches)	Datak No.	Qty./ Set	OD x ID (Inches)
MS-1**	800	.080 x .020	**JD-136***	4608	.156 x .031
MS-2	380	.080 x .031	**MS-7***	360	.187 x .031
JD-131	4920	.080 x .031	**JD-137***	4608	.187 x .031
MS-3	380	.093 x .031	**MS-8††**	240	.218 x .031
JD-132	4920	.093 x .031	**MS-9†**	160	.250 x .031
MS-4	380	.100 x .031	**JD-144**	4920	.100 x .040
JD-133	4920	.100 x .031	**JD-124R**	5760	.125 x .040
MS-5	380	.125 x .031	**JD-145**	4920	.150 x .040
JD-134	4920	.125 x .031	**JD-146***	4608	.156 x .040
MS-6	380	.150 x .031	**JD-147***	4608	.187 x .040
JD-135	4920	.150 x .031	**JD-150†**	1920	.250 x .040

**Close space. *Spaced .250″ x .250″. †Spaced .400″ x .400″. ††Spaced .312″ x .280″.

Net per Set, any **MS-#**...............................**$ 1.75**

Net per Set, any **JD-#**...............................**$10.00**

PRINTED CIRCUIT TAPES

Precision slit, black crepe tapes for use with JotDraft or standard die-cut drafting aids. Available in a variety of widths.

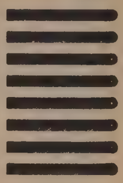
Widths	Net Each
.015″, 1/32″, .040″ and .050″..........................	$1.60
1/16″, .080″, 3/32″, .100″, 1/8″........................	1.70
.150″, 3/16″, .200″...	1.75
1/4″..	2.00
.300″...	2.25
3/8″, .400″, 1/2″..	2.75

Drafting Film—Use as a dimensionally stable base for printed circuit master art. Matt polyester accepts pencil, india ink, stick-ons and dry transfers. Includes 2 sheets; 8½″ x 11″.

Datak No. MS-21—Net Each..............................**$1.60**

Edge Card Connector Finger Patterns—Precision spaced. Use as P.C. art or as direct etch resist. Style shown is JD-168.

Datak No.	Scale	Description
JD-121R	2X	.156″ spaced, 24 strips
JD-166	2X	.125″ spaced, 24 strips
JD-123R	2X	.100″ spaced, 24 strips
JD-122R	1X	.156″ and 125″ spaced, 24 strips, each type
MS-17	1X	.156″ spaced, 8 strips
MS-18	1X	.125″ spaced. 8 strips
JD-168	1X	.100″ spaced, 48 strips
MS-19	1X	.100″ spaced, 8 strips



Net Each, any **JD-#**.............**$10.00**

Net Each, any **MS-#**.............**$ 1.75**

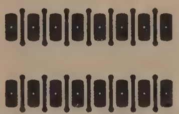


Fig. A

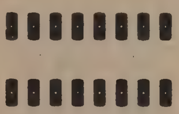


Fig. B

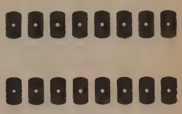


Fig. C

Datak No.	Fig.	Scale	No. Pins	Datak No.	Fig.	Scale	No. Pins
JD-67	A	2X	14	**JD-68**	A	1X	14
JD-64	A	2X	16	**JD-65**	A	1X	16
JD-188	B	2X	14	**JD-189**	B	1X	14
JD-185	B	2X	16	**JD-186**	B	1X	16
JD-182	C	2X	14	**JD-183**	C	1X	14
JD-179	C	2X	16	**JD-180**	C	1X	16

Net Each, any of above.............................**$10.00**

Other TO, DIP and Target Patterns—Not for direct etch use. All are 1X scale; have clear carrier. DIP patterns are 16 pin only.

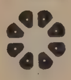


Fig. D

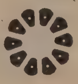


Fig. E

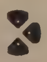


Fig. F

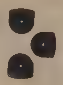


Fig. G

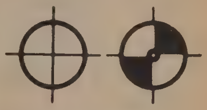


Fig. H

Datak No.	Fig.	Quantity/ Set	Datak No.	Fig.	Quantity/ Set
MS-10	D	96	**MS-14**	A	32
MS-11	E	96	**MS-15**	B	32
MS-12	F	144	**MS-16**	C	32
MS-13	G	84	**MS-20**	H	40

Net Each, any of above.............................**$1.75**

FOR INDUSTRIAL ELECTRONIC EQUIPMENT AND PARTS,

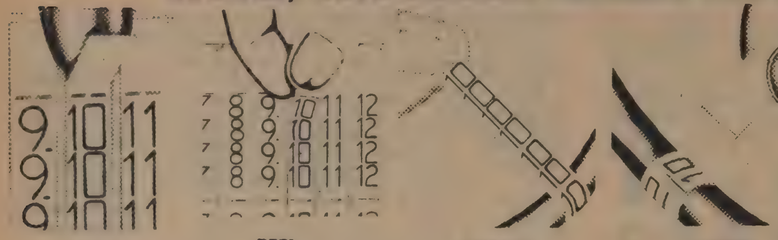
WE CAN SUPPLY ALL YOUR REQUIREMENTS,

OFFERING COMPLETE LINE WITH UP-TO-DATE STOCK, FAST DELIVERY AND INDUSTRIAL QUANTITY CONVENIENCE. AS NEW PRODUCTS ARE DEVELOPED, WE WILL OBTAIN THEM FOR YOUR IMMEDIATE AVAILABILITY.

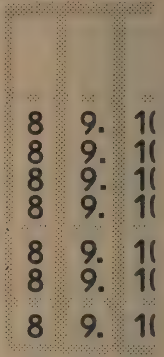
WRITE FOR FULL INFORMATION ON NEW OR UNLISTED ITEMS.

DATAK FLEXY•MARKER®

RUGGED, CONFORMABLE MARKERS FOR ALL WIRE SIZES



FLICK **PEEL** **WRAP** **DONE!**



ACTUAL SIZE MARKER

Tear-off applicator has no adhesive.

Legends are fused into marker film. Won't wear off.

3 perforations are graded in strength. Pull off needed sections as you apply marker.

- **MARK** with a full wrap around #0 solid wire, **OR**
- **MARK** a terminal strip and any two wires from #24 to #14, **OR**
- **MARK** just one wire and replace the rest of the marker on its card for later use.

Flexy-Marker is a radically new style of wire marker. Ultra-thin and flexible, it will neatly wrap around and mark wires as small as #24. Yet, the same marker will make a full wrap around wires as large as .350" diameter. The secret is in the mechanical design. Each marker has four sections divided by perforations that are graduated in strength. The smallest section, with one legend, is held by the weakest perforation and will mark a terminal. The second section, with two legends, is held by a stronger perforation and will mark a thin wire (#24 to #14). The third section, with four legends, is held by the strongest perforation and will mark wires from #24 to #5. The fourth section is the applicator tab and has no adhesive. You can apply only part of the marker, pull off the rest, and save it for later use.

THE FLEXY-MARKER PACKAGE

Flexy-Marker wire markers are supplied in packs of 24 sheets bound into a handy pocket-sized pad. You receive 1056 two-figure markers, 768 three-figure markers, or 624 four-figure markers.

MARKER ASSORTMENT PACKS

Datak No. FBUS Electrical Assortment—Contains 32 each of POS, NEG, GND, HOT, PH1, PH2, PH3; 44 each of L1, L2, L3, L4, NEUT, T1, T2, T3, AC, DC; 26 each of XTRA; and 8 sets of A through Z. 854 total. Net Each.................. **$6.95**

Datak No. F1S104 Number Assortment—Contains 24 sets of consecutive numbers 1–22 and 6 sets of consecutive numbers 23–104. 1014 total consecutive numbers. Net Each...... **$6.95**

OTHER CONSECUTIVE NUMBER PACKS

The following consecutive number packs are available. Two-digit packs have 1056 markers. Three-digit packs have 768 markers.

Datak No.	Description	Sets per Pad	Datak No.	Description	Sets per Pad
F1S104	1–104	36	**F265S96**	265–296	24
F1S22	1–22	48	**F297S28**	297–328	24
F23S66	23–66	24	**F329S60**	329–360	24
F67S104	67–104	24	**F361S92**	361–392	24
F105S36	105–136	24	**F393S24**	393–424	24
F137S68	137–168	24	**F425S56**	425–456	24
F169S00	169–200	24	**F457S88**	457–488	24
F201S32	201–232	24	**F489S20**	489–520	24
F233S64	233–264	24			

ANY OF THE ABOVE PACKS. Net Each............. **$6.95**

LETTER PACKS

The following letter packs are available. All solid letter packs contain 1056 markers. The alphabet pack contains 1248 markers. All are supplied in bound and padded 24-sheet packs.

Datak No.	Description	Datak No.	Description
FALPHA **FA**	A–Z A	**FB** **etc. to** **FZ**	B etc. to Z

ANY OF THE ABOVE PACKS. Net Each............. **$6.95**

WRITE-ON FLEXY MARKERS

Supplied in sets of 6 identical 8½" x 9¾" sheets suitable for typewriter or platen-feed printers. Markers are spaced in 1/6" multiples for easy typing. Will also accept pen or pencil. A treated area absorbs ink slowly so that corrections may be made if done at once. The write-on portion is protected by a clear vinyl overwrap when marker is wrapped around a wire.

Datak No.	Dimensions, Ins.			Max. Wire Diam.	Markers per Set
	W	L1	L2		
FWR1	0.50	0.50	0.1875	0.156	630
FWR2	1.25	0.50	0.1875	0.156	252
FWR3	2.00	0.50	0.1875	0.156	168
FWR4	0.50	1.20	0.300	0.375	360
FWR5	1.25	1.20	0.300	0.375	144
FWR6	2.00	1.20	0.300	0.275	96
FWR7	1.25	2.40	0.750	0.750	72
FWR8	2.00	2.40	0.750	0.750	48
FWR9	1.90	3.83	0.750	1.220	48

ANY OF THE ABOVE PACKS. Net Each............. **$6.95**

FLEXY-MARKER SPECIFICATIONS

Dimensions: 0.25" nominal w. x 1.125" lg.

Base Film: 0.003" ultra-soft vinyl plastisol.

Adhesive: Modified acrylic.

Temperature Range: For Class A or B insulations, −55° C to 130° C. May be used to 150° C, but yellowing will occur when at this temperature for long periods.

Resistance to Petroleum Products: Unaffected by immersion in most lubricating and hydraulic oils.

Max. Wire Diam. for Full Wrap: 0.350". Marker holds securely without full wrap on Kynar, Vinyl, Nylon, Fiberglas, asbestos, cotton, Polyethylene, Polypropylene, and silicone rubber. Use a full wrap on other rubber insulations and on Teflon. Note: Your conditions may vary from the test conditions. Test this product under your conditions to determine its suitability.

SOLID NUMBER PACKS

Datak No.	Description	Datak No.	Description
FN0SLASH **FN0** **F1**	0 0 1	**F2** **etc. to** **F520**	2 etc. to 520

ANY OF THE ABOVE PACKS. Net Each............. **$6.95**

OTHER ELECTRICAL AND ELECTRONIC LEGENDS

The following legends are used for electrical bus and machinery interconnection wiring. Supplied in padded 24-card packs.

Datak No.	Description	Markers per Pad	Datak No.	Description	Markers per Pad
FL1	L1	1056	**F120V**	120V	624
FL2	L2	1056	**F208V**	208V	624
FL3	L3	1056	**F220V**	220V	624
FL4	L4	1056	**F240V**	240V	624
FPH1	PH1	768	**F277V**	277V	624
FPH2	PH2	768	**F440V**	440V	624
FPH3	PH3	768	**F480V**	480V	624
FT1	T1	1056	**FAC**	AC	1056
FT2	T2	1056	**FDC**	DC	1056
FT3	T3	1056	**FNEUT**	NEUT	624
FT4	T4	1056	**FBUS**	†	768
FT5	T5	1056	**FCOLORS**	‡	768
FT6	T6	1056	**FBLK**	(black)	768
FT7	T7	1056	**FBRN**	(brown)	768
FT8	T8	1056	**FRED**	(red)	768
FGND	GND	768	**FORG**	(orange)	768
FHOT	HOT	768	**FYEL**	(yellow)	768
FMINUS	−	1056	**FLTGRN**	(lt. green)	768
FNEG	NEG	768	**FDKGRN**	(dk. green)	768
FPLUS	+	1056	**FLTBLU**	(lt. blue)	768
FPOS	POS	768	**FDKBLU**	(dk. blue)	768
FXTRA	XTRA	624	**FVIO**	(violet)	768
F110V	110V	624	**FGRY**	(gray)	768
F115V	115V	624	**FWHT**	(white)	768

†Contains 8 sets of A thru Z and one sheet each of POS, NEG, GND, AC, DC, 120V, 240V, HOT, NEUT, PH1, PH2, PH3, L1, L2, L3, L4, XTRA, T1, T2, T3. ‡Contains 12 NEMA colors.

ANY OF THE ABOVE PACKS. Net Each............. **$6.95**

GC ELECTRONICS

Microelectronic Materials

CARD EDGE CONNECTORS

Dual row, phosphor bronze contacts. Mounting ears with .125″ holes.

GC No.	Row Spacing	Contact Spacing	No. of Contacts	Net Each
PIERCED EYELET TERMINALS				
41-800	.156″	.145″	12	$3.73
41-802	.156″	.145″	20	4.77
41-804	.156″	.145″	24	5.47
41-806	.156″	.145″	30	6.35
41-808	.156″	.145″	36	7.13
41-810	.156″	.145″	44	7.68
SOLDER DIP TERMINALS				
41-812	.156″	.145″	12	$3.43
41-814	.156″	.145″	20	4.35
41-816	.156″	.145″	24	5.03
41-818	.156″	.145″	30	5.83
41-820	.156″	.145″	36	6.52
41-822	.156″	.145″	44	7.07
WIRE WRAP TERMINALS				
41-852	.156″	.200″	44	$ 8.54
41-856	.125″	.250″	60	10.54
41-858	.125″	.250″	80	12.55
41-860	.125″	.250″	100	15.29
41-862	.100″	.200″	30	6.15
41-870	.100″	.200″	100	15.39

LOCKING/POLARIZING STRAIGHT HEADERS

.156″ CENTERS

Constructed of 94V-O nylon housing with pre-inserted .045″ square pins.

GC No.	No. of Contacts	Length	Mates With	Net Each
41-242	2	0.750″	41-332	$0.35
41-244	4	0.750″	41-334, 41-204	.48
41-246	6	0.750″	41-336, 41-206	.58
41-248	8	0.750″	41-338, 41-308	.70
41-272	2	1.250″	41-332	.52
41-274	4	1.250″	41-334, 41-204	.65
41-276	6	1.250″	41-336, 41-206	.70
41-278	8	1.250″	41-338, 41-208	.88
41-280	10	1.250″	41-340, 41-210	1.05

LOCKING/POLARIZING DOUBLE STRAIGHT HEADERS

.156″ CENTERS

Constructed with 94V-O nylon housing with pre-inserted .045″ square pins.

GC No.	Contacts	Mates With	Net Each
41-302	2	41-332	$0.57
41-304	4	41-334	.62
41-306	6	41-336	.80
41-308	8	41-338	1.00
41-310	10	41-340	1.22

DIP IC SOCKETS— WIRE WRAP TERMINALS

Low profile sockets will accept IC leads 0.014″ x 0.025″. Phosphor bronze contacts have bright tin plating. Insulator is glass-filled thermoplastic. Terminals are .025″ square.

GC No.	No. of Pins	Net Each
41-750	8	$0.70
41-752	14	1.00
41-754	16	1.12
41-756	22	1.80
41-758	24	1.83
41-760	28	2.33
41-762	40	2.92

SIP COMPONENT ADAPTER

Wire-wrap type snap adapter has 20 phosphor bronze, spring tempered pins .025″ square. Plating is gold over nickel; insulator is glass-filled polyester. Terminals are spaced on .100″ centers; overall length is 2.10″. Easily snapped into shorter lengths. Adapter mates with SIP socket below.

No. 41-501 Component Adapter—
Net Each........................**$3.13**

SIP SOCKET

Snap-apart socket mates with 20-pin adapter above. Phosphor bronze, spring tempered contacts are plated with gold over nickel. Glass-filled polyester insulator.

No. 41-511 Socket—Net Each....**$3.47**

GTC DIP SOCKETS

Gas-tight contact sockets operate by spring-force created gas-tightness, which resists corrosion and perform with the reliability of gold-plated contacts. Glass-reinforced polyester insulator; copper alloy contacts plated with whisker-free tin alloy.

GC No.	No. of Pins	Net Each
41-775	8	$0.42
41-776	14	.48
41-777	16	.53
41-778	18	.58
41-779	20	.60
41-780	22	.65
41-781	24	.75
41-782	28	.87
41-783	40	1.22

COMPONENT HEADER PLATFORMS

Low profile sockets may be mounted end-to-end or side-by-side. Glass-reinforced polyester insulator; copper alloy contacts with gold flash finish.

GC No.	No. of Pins	Net Each
41-560	14	$1.83
41-562	16	1.95

RIGHT ANGLE HEADERS

For use with dual row IDC sockets. Phosphor bronze contacts plated with gold over nickel. Mounts on PC boards up to 1/16″ thick.

GC No.	No. of Pins	Mates With	Net Each
41-920	14	41-900	$2.12
41-922	16	41-902	2.38
41-924	20	41-904	2.75
41-926	26	41-906	3.33
41-928	34	41-908	4.45
41-930	40	41-910	4.88
41-932	50	41-912	5.98

IDC SOCKETS

For flat cable with .050″ spacing. Accepts #28 stranded or #30 solid wire. Rated 1 amp DC, 250 VAC. Dual row contacts.

GC No.	No. of Pins	Mates With	Net Each
41-900	14	41-920	$2.75
41-902	16	41-922	2.97
41-904	20	41-924	3.60
41-906	26	41-926	4.50
41-908	34	41-928	5.52
41-910	40	41-930	6.20
41-912	50	41-932	7.37

IDC CARD EDGE CONNECTORS

Dual row connectors for use with flat cable with .050″ spacing. Accepts #28 stranded or #30 solid wire. Contacts are phosphor bronze with gold over nickel. Fits boards up to 1/16″ thick.

GC No.	No. of Pins	Net Each
41-940	16	$4.50
41-942	20	5.03
41-944	26	5.72
41-946	34	6.68
41-948	40	7.53
41-950	50	9.12

IDC DIP PLUG

For flat cable with .050″ spacing and #28 stranded or #30 solid wire. Copper alloy contacts are plated with gold over nickel.

GC No.	No. of Pins	Mates With	Net Each
41-520	14	41-542	$2.82
41-522	16	41-544	3.50
41-524	34	41-548	5.43
41-526	40	41-552	5.98

IDC "D" SUBMINIATURE SOCKET AND PLUG

Nickel-plated copper alloy contacts and glass-filled thermoplastic insulator. For use with ribbon cable with .050″ spacing.

GC No.	Mates With	Net Each
41-528	41-530	$11.77
41-530	41-528	10.57

SNAP-LOCK CRIMP CONNECTORS

.156″ CENTERS

Constructed of 94V-O nylon with crimp connectors, tin plated over copper.

GC No.	No. of Contacts	Mates With	Net Each
41-332	2	41-242, 41-272	$0.48
41-334	4	41-224, 41-274	.58
41-336	6	41-246, 41-276	.77
41-338	8	41-248, 41-278	.92
41-340	10	41-250, 41-280, 41-310	1.20

SQUARE WIRE WRAP PINS

GC No.	Size	Length	Net Each
PLATED .00015″ TIN OVER .00015″ COPPER			
41-420	.045″	0.750″	$1.17
41-422	.045″	1.250″	1.53
PLATED .0002″ TIN OVER .0001″ COPPER			
41-424	.045″	0.560″	$0.92
41-426	.025″	0.810″	.95

CARD EDGE CONNECTORS

Constructed of 94V-O nylon with crimp type connectors. Mate with .062″ single side PC board.

GC No.	No. of Contacts	Contact Centers	Net Each
41-175	5	.100″	$0.75
41-180	10	.100″	1.35
41-385	5	.156″	.95
41-390	10	.156″	1.27

GC ELECTRONICS

Microelectronic Materials

DIP SOLDER CONNECTORS

Insulator is 94V-O nylon. Mounted vertically with top entry. Contacts are on .156″ centers.

GC No.	No. of Contacts	Net Each
41-204	4	$0.53
41-206	6	.58
41-208	8	.63
41-210	10	.75

CRIMP-TYPE LOCKING POLARIZING CONNECTORS

Insulator is 94V-O nylon. Mounted vertically with top entry. .100″ centers.

GC No.	No. of Contacts	Mates With	Net Each
41-122	2	41-042, 41-082	$0.45
41-124	4	41-044, 41-084	.58
41-126	6	41-046, 41-086	.75
41-128	8	41-048, 41-088	.90
41-130	10	41-050, 41-090	1.20

DIP SOLDER CONNECTORS

Insulator is 94V-O nylon. Mounted vertically with top entry. Contacts on .100″ centers.

GC No.	No. of Contacts	Mates With	Net Each
41-002	2	41-042	$0.53
41-004	4	41-044	.63
41-006	6	41-046	.77
41-008	8	41-048	.85
41-010	10	41-050	.97

LOCKING POLARIZING HEADERS

Insulator is 94V-O nylon. Posts are .025″ square on .100″ centers. Vertical mounting.

GC No.	No. of Contacts	Mates With	Post Lgth.	Net Each
41-042	2	41-122, 41-002	.56″	$0.60
41-044	4	41-124, 41-004	.56″	.68
41-046	6	41-126, 41-006	.56″	.72
41-048	8	41-128, 41-008	.56″	.95
41-050	10	41-130, 41-010	.56″	1.02
41-082	2	41-122, 41-002	.81″	.60
41-084	4	41-124, 41-004	.81″	.68
41-086	6	41-126, 41-006	.81″	.78
41-088	8	41-128, 41-008	.81″	.87
41-090	10	41-130, 41-010	.81″	.93

CRIMP-TYPE CONTACTS

Plated with tin over copper. Package of 25.

GC No.	Fits Connector	Net Each
41-160	41-122, 41-124, 41-126, 41-128, 41-130	$1.17
41-370	41-332, 41-334, 41-336, 41-338, 41-340	1.27

WIRE WRAP DISPENSER

Plastic housing holds 50-foot spool of #30 silver-plated, solid Kynar insulated wire. Dispenses, cuts, and strips wire.

Dispenser			Refill	
GC No.	Each	Color	GC No.	Each
41-620	$5.43	Blue	41-630	$3.45
41-622	5.43	Yellow	41-632	3.45
41-624	5.43	White	41-634	3.45
41-626	5.43	Red	41-636	3.45

MANUAL WIRE WRAP TOOL

Hand tool wraps and unwraps #20 to #30 AWG wire onto .025″ square wire wrap posts.

GC No. 41-600 Wire Wrap Tool—
Net Each **$9.82**

MANUAL UNWRAP TOOL

Hand tool unwraps wire from .025″ square wire wrap posts.

GC No. 41-605 Unwrap Tool—
Net Each **$4.43**

JUST WRAP™ WIRE TOOL

Wraps and cuts wire for wrapping on .025″ square posts. No stripping or slitting required. Contains 50 feet of #30 AWG Kynar insulated wire.

GC No. 41-601 Wire Tool—
Net Each **$18.65**

JUST WRAP REFILL SPOOLS

50-foot rolls of #30 Kynar insulated wire.

GC No.	Color	Net Each
41-640	Blue	$3.85
41-642	White	3.85
41-644	Yellow	3.85
41-646	Red	3.85

DUAL WRAP TOOL

Winds, strips, and unwraps #22 or #24 AWG solid hookup wires on .045″ square posts.

GC No. 41-603 Wrap Tool—
Net Each **$17.02**

AUTOMATIC WIRE WRAP TOOL

Tool wraps #30 AWG wire onto standard .025″ wire wrap posts. Built-in bit and sleeve prevent overwrap. Operates on two "C" batteries.

GC No. 41-602 Wrap Tool—
Net Each **$42.56**
GC No. 41-660 Replacement Bit—
Net Each **$4.90**

CLIP AND STRIP

Cuts lengths of #30 AWG wire and strips it nick-free.

GC No. 41-610—Net Each **$2.57**

RIBBON CABLE

Ideal for applications in digital data and signal transmissions where termination speed and flexibility are required. Cable consists of PVC insulated round conductors on .050″ centers laminated to a sheet of PVC film. Cable has controlled electrical characteristics with the advantages of color coding, ease of separation, and mass termination. Any IDC connector with .050″ centers may be used. Superior tear down characteristics permit termination just as conventional hookup wire. **Conductors:** #28 AWG (7/36) stranded, tinned copper wire. **Temperature Rating:** 80° C. **Voltage Rating:** 300 volts. **Capacitance:** 14 pF/ft. **Color Code:** Brown, red, orange, yellow, green, blue, violet, gray, white and black. Code repeats over 10 conductors.

GC No.	Lgth.	No. of Cond.	Width	Net Each
41-580	12″	14	.65″	$1.15
41-583	36″	14	.65″	3.07
41-586	12″	16	.75″	1.50
41-589	36″	16	.75″	3.55
41-592	12″	24	1.15″	1.85
41-595	36″	24	1.15″	4.62
41-596	12″	50	2.45″	3.13
41-599	36″	50	2.45″	8.40

GROUNDED DIP INSERTER

For 14- and 16-pin IC packages. Has pin straightener and ground strap.

GC No. 41-606 Inserter—Net Ea.. **$9.65**

DIP INSERTION TOOL

For 14- and 16-pin IC packages. With pin straightener and automatic ejector.

GC No. 41-604 Inserter—Net Ea.. **$4.05**

GROUNDED DIP INSERTER

For 36- and 40-pin IC packages. Straightens pins and locks into .600″ spacing. Has ground strap.

GC No. 41-608 Inserter—Net Ea.. **$9.85**

GROUNDED DIP EXTRACTOR

For 36- and 40-pin IC packages. Extracts with a press of the plunger. Has ground strap.

GC No. 41-612 Extractor—Net Ea. **$9.85**

SPRING STEEL EXTRACTOR

One-piece construction. Extracts all LSI, MSI, and SSI devices from 8 to 24 pins.

GC No. 41-614 Extractor—Net Ea. **$2.25**

WIZ CLIP MICRO TROUBLESHOOTER

Allows easy connection to ICs of 14 or 16 pins with power on or off. Contacts are gold plated.

GC No. 9487 Wiz Clip—Net Ea... **$4.95**

FOR INDUSTRIAL ELECTRONIC EQUIPMENT AND PARTS,
WE CAN SUPPLY ALL YOUR REQUIREMENTS,
OFFERING COMPLETE LINE WITH UP-TO-DATE STOCK, FAST DELIVERY AND INDUSTRIAL QUANTITY CONVENIENCE. AS NEW PRODUCTS ARE DEVELOPED, WE WILL OBTAIN THEM FOR YOUR IMMEDIATE AVAILABILITY.
WRITE FOR FULL INFORMATION ON NEW OR UNLISTED ITEMS.

Jim-pak®
electronic components

TTL

Part No.	Description		
7400	Quad 2-Input NAND Gates	(2 per pkg.)	.69
7402	Quad 2-Input NOR Gates	(2 per pkg.)	.89
7404	Hex Inverters	(2 per pkg.)	.89
7408	Quad 2-Input AND Gates	(2 per pkg.)	.89
7410	Triple 3-Input NAND Gates	(2 per pkg.)	.89
7420	Dual 4-Input NAND Gates	(2 per pkg.)	.89
7430	Single 8-Input NAND Gates	(2 per pkg.)	.89
7432	Quad 2-Input OR Gates	(2 per pkg.)	.89
7442	BCD to Decimal Decoder/Driver		1.49
7447	BCD to 7-segment Decoder/Driver		1.49
7473	Dual JK M/S Flip-Flop		.69
7474	Dual D Flip-Flop		.69
7475	4-Bit Latches		.89
7476	Dual JK M/S Flip-Flop		.69
7485	4-Bit Mag Comparator		1.49
7490	Decade Counter		.89
7492	Divide by 12 counter		.99
7493	Binary Counter		.99
74107	4-Bit Dual JK M/S Flip Flop		.89
74121	Monostable One-Shot Multivibrator		.89
74122	Retriggerable 1 shot		.89
74123	Dual Retriggerable 1 shot		.99
74125	Tri-state Quad Bus Buffer		.89
74154	4-Line to 16-Line Decoder		2.49
74161	Presettable 4-Bit Binary Counter		1.99
74176	BCD Decade Counter		1.49
74177	4-Bit Binary Counter		1.49
74192	Up/Down BCD Decade Counter		1.49
74193	Up/Down 4-Bit Bianary Counter		1.49
74367	Tri-state Hex Buffer		1.49

Low Power TTL Schottky

Part No.	Description	
74LS00	Quad 2-Input NAND Gate	.59
74LS02	Quad 2-Input NOR Gate	.59
74LS04	Hex Inverter	.59
74LS08	Quad 2-Input AND Gate	.59
74LS10	Triple 3-Input NAND Gate	.59
74LS20	Dual 4-Input NAND Gate	.59
74LS30	Single 8-Input NAND Gate	.59
74LS32	Quad 2-Input OR Gate	.69
74LS73	Dual JK M/S Flip Flop	.79
74LS74	Dual D Flip Flop	.79
74LS75	4-Bit Latches	.99
74LS83	4-Bit Binary Full Adders	1.99
74LS85	4-Bit Mag Comparator	1.99
74LS86	Quad 2-Input Exclusive OR Gate	.89
74LS90	Decade Counter	1.19
74LS109	Dual JK Triggered Flip-Flop	.79
74LS123	Dual Retriggerable 1 shot	1.99
74LS136	Quad 2-Input Exclusive OR Gate	1.19
74LS138	3 to 8 Line Decoders/Demultiplexer	1.59
74LS151	8-Input Multiplexer	1.59
74LS175	Quad DF-F with Clear	1.59
74LS367	Tri-state Hex Buffer	1.49

C/MOS

Part No.	Description	
CD4000	Dual 3-Input NOR Gate and Inverter	.59
CD4001	Quad 2-Input NOR Gate	.59
CD4010	Hex/Buffer/Converter	.89
CD4011	Quad 2-Input NAND Gate	.59
CD4013	Dual "D" Flip-Flop with set/reset	.89
CD4016	Quad Bilateral Switch	.89
CD4017	Decade Counter/Divider	1.39
CD4020	14-stage Binary Ripple Counter	1.79
CD4023	Triple 3-Input NAND Gate	.59
CD4024	7-stage Binary Counter	1.49
CD4029	Presettable Up/Down Counter	1.79
CD4044	Quad 3-stage NAND R/S Latch	1.39
CD4046	Micropower Phase-Locked Loop	2.49
CD4049	Hex Buffer/Convertors (Inverting)	.89
CD4050	Hex Buffer/Convertors (Non-inverting)	.89
CD4051	Single 8-channel Multiplexer	1.39
CD4069	Hex Inverter	.59
CD4071	Quad 2-Input OR Gate	.59
CD4081	Quad 2-Input AND Gate	.59
CD4511	BCD-to-7 Segment Latch/Decoder/Driver	2.49

LINEAR

Part No.	Description	
LM301V	Improved Op Amp	.59
LM307V	Op Amp (Super 741)	.59
LM309KC	5 Volt Pos. Regulator	2.49
LM311V	High-Performance Volt. Comp.	2.49
LM320K-5 (7905)	5 Volt Neg. Regulator	2.99
LM320T-5 (7905)	5 Volt Neg. Regulator	2.75
LM320T-12 (7912)	12 Volt Neg. Regulator	2.75
LM320T-15 (7915)	15 Volt Neg. Regulator	2.75
LM339N	Quad Comparator	1.99
LM340T-5 (7805)	5 Volt Pos. Regulator	2.75
LM340T-12 (7812)	12 Volt Pos. Regulator	2.75
LM340T-15 (7815)	15 Volt Pos. Regulator	2.75
LM555V	Timer	.79
LM556N	Dual 555 Timer	2.99
LM567V	Tone Decoder Phase Lock Loop	2.99
LM723N	Voltage Regulator	.99
LM739N	Dual Low Noise Audio Preamp	1.99
LM741V	Compensated Op Amp	.59
LM747N	Dual 741 Op Amp	1.49
LM1458V	Dual Comp. Op Amp	.99
LM1556V	High Performance Op Amp	2.99
LM3900N(CA3401)	Quad Amp	1.99

MICROPROCESSOR

Part No.	Description	
Z80	CPU	34.95
8080A	CPU	17.95
8212	8 Bit Input/Output Port (For 8080A)	6.95
8224	Clock Generator & Driver (For 8080A)	10.95
8228	System Controller & Bus Driver (8080A)	13.95
6800	8 Bit MPU	29.95
6810	128 x 8 Static RAM	8.95
6830	1024 x 8 Bit ROM	18.00
AY-5-1013	30K Baud UART	6.95
2513/2140	Character Generator (Upper Case)	10.95
2101	256 x 4 Static RAM	6.95
2102	1024 x 1 Static RAM	3.49
21L02	1024 x 1 Static RAM (Low Power)	3.99
7489	16 x 4 Read/Write Memory	2.99
MM5262	2K x 1 Dynamic RAM	1.95
1702A	2048 Eraseable PROM	10.95
82S23	256-Bit Bipolar PROM	7.95
2708	8K EPROM	22.95
DM8835N	Quad Tri-State Transceiver	2.95
8T97N	High Speed Tri-State Hex Buffer	2.95

DIODES

Part No.	Description		
IN751	5.1V 400M watt Zener Diode	(2 per pkg.)	.59
IN4733	5.1V 1 watt Zener Diode	(2 per pkg.)	.69
IN4734	5.6V 1 watt Zener Diode	(2 per pkg.)	.69
IN4742	12V 1 watt Zener Diode	(2 per pkg.)	.69
IN4744	15V 1 watt Zener Diode	(2 per pkg.)	.69
IN4148 (IN914)	Switching Diode	(10 per pkg.)	.99
IN4001	50 PIV 1 AMP Rectifier	(4 per pkg.)	.59
IN4004	400 PIV 1 AMP Rectifier	(4 per pkg.)	.79
IN4007	1000 PIV 1 AMP Rectifier	(4 per pkg.)	.89
MDA980-3	200V 12 AMP FW Bridge Rectifier		2.49

TRANSISTORS

Part No.	Description		
C106B1	200V 3.6 AMP SCR		.99
2N2222A	NPN 500MA hFE: 100-300	(2 per pkg.)	.89
2N2907A	PNP 500MA hFE: 100-300	(2 per pkg.)	.89
MJE 2955	PNP 10 AMP hFE: 20-70		1.69
MJE 3055	NPN 10 AMP hFE: 20-70		1.69
2N3055	NPN 15 AMP hFE: 20-70		.99
2N3904	NPN 100MA hFE: 100-300	(2 per pkg.)	.69
2N3906	PNP 100MA hFE: 100-300	(2 per pkg.)	.69
2N5129	NPN 100MA hFE: 20-250	(2 per pkg.)	.69
2N5139	PNP 100MA hFE: 40-350	(2 per pkg.)	.69

BOOKS

Part No.	Description	
JPTTL	7400/74LS TTL Data Book*	2.95
JPCML	CMOS/Linear Data Book*	2.95
JPMPD	Microprocessor/Display Data Book*	2.95

*JIMPAK Product Line Only

Etched Circuit Kits

NEW IMPROVED IMMERSION TIN-PLATING KIT

Five minutes immersion in electroless tin solution deposits an essentially pure tin plating .00002" thick on oxide-free copper surface of etched PC board. Improves solderability; prevents oxidation. Kit includes thermometer, heat-resistant tray (for heating solution to 150° F approx.), plastic handling tong (for panels 1"–7" wide) and solution to plate about 25 sq. ft. of etched circuit boards. Use a range-top burner or electric plate as heat source.

Kepro Model ITP-801A Tin-Plating Kit—Net Each.... **$23.20**

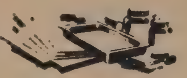
MANUAL/PHOTO RESIST LAB KITS

Produce etched circuit boards using both manual-resist and photo-resist methods. Will meet all circuit board development needs of the design engineer or experimenter. Include more than 3 square feet of single and double-clad boards, both plain and photo-sensitized, for projects ranging from simple prototype circuits through short-run photo-processed production. Can produce boards up to 7" x 10". Kits include photo layout materials (mechanical negatives, pressure-sensitive conductor strips, termination circles, letters and numerals) to speed circuit artwork; chemicals: trays; exposure lamp; plus all necessary accessories and instructions.

Kepro No. L-505A Etched Circuit Lab Kit—With XXXP paper base phenolic boards. Net Each.................... **$68.10**

Kepro No. L-505A-G Etched Circuit Lab Kit—With G-10 glass epoxy boards. Net Each.......................... **$75.65**

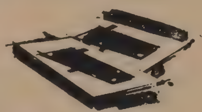
PHOTO REVERSING KIT



Offers easy 2-step method for making negatives or positives from artwork, or reversing existing negatives and positives. No darkroom, trays or fixing needed. Kit includes two sheets 10" x 24" reversing film, developer, accessories, instructions.

Kepro No. FK-701 Photo Reversin Kit—
Net Each.................. **$16.25**

NAMEPLATE AND PANEL KITS



Easy-to-use kits let you produce professional-quality aluminum nameplates for custom applications. Photosensitized aluminum panels can be processed without a darkroom. Kits include clear acetate sheets and pressure-sensitive opaque letters and numbers in three fonts, photosensitized panels, chemicals, accessories and instructions.

Kepro No. NP-303A Enamel Nameplate and Panel Kit (Fig. E)—Will produce 160 sq. in. of attractive blue panels with sharp, clear aluminum characters. Net Each................ **$19.10**

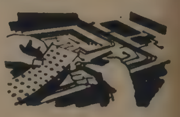
Kepro No. NP-404 Anodized Nameplate and Panel Kit (Fig. F)—Includes materials for 54 sq. in. of professional-looking black anodized aluminum panels, with detailed aluminum characters.
Net Each..................................... **$12.65**

SILK SCREEN PRINTING KIT

Professional materials and equipment for producing lacquer-resistant film type photo stencils with print areas up to 7" x 9", and for printing production quantities of circuit boards. Kit includes: 10" x 12" wood frame with stretched silk, two extra silks, three 8" x 10" stencil films, exposure lamp, thermometer, squeegee, black-and-white inks, developer, tray, block-out medium, comprehensive instructions.

Kepro No. SC-601-A Silk Screen Kit—Net Each...... **$97.20**

STANDARD MANUAL-RESIST KITS

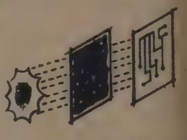


For development of basic etched circuit patterns. Liquid and pressure-sensitive tape resists are applied directly to copper clad boards before etching. Kits include three 3" x 6" boards, clad on one side; liquid resist pen; assorted conductor strips and termination circles; graph paper; etching solution; tray; instructions.

Kepro No. S-101A Manual-Resist Etched Circuit Kit—With XXXP paper-base phenolic boards. Net Each.......... **$9.20**

Kepro No. S-101A-G Manual-Resist Etched Circuit Kit—With G-10 glass epoxy boards. Net Each.................. **$10.20**

PHOTO-RESIST CIRCUIT KITS

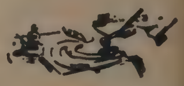


Produce professional-quality etched circuit boards using photo-engraving process. Kits include: Two 3" x 6" and one 3" x 3" single-clad photo-sensitized boards; strip-and-peel mechanical negatives; developing and etching solutions; trays; accessories and complete instructions.

Kepro No. P-101A Professional Photo-Resist Kit—With XXXP paper base phenolic boards. Net Each......................... **$12.30**

Kepro No. P-101A-G Professional Photo-Resist Kit—With G-10 glass epoxy boards. Net Each....................... **$13.35**

MASTER PHOTO LAYOUT KIT



Prepare printed-circuit artwork quickly and professionally, using strip-and-peel mechanical negatives and pressure-sensitive conductor strips, termination circles, letters and numerals. Artwork can be used actual size as negative or positive, or produced at 2:1 or 4:1 scales and photographically reduced, for finer detail. Master kit includes materials to produce master artwork up to 18" x 24". Wide assortment of 1/10" grid graph paper and drafting film; mechanical negatives; pressure-sensitive conductor strips and termination circles in wide range of width and diameters; letters and numerals in assorted sizes; opaquing fluid and brush; assorted art craft tools and full instructions.

Kepro No. PL-200A Master Photo Layout Kit—Net **$107.15**

Kepro No. PL-2A Basic Photo Layout Kit—Includes two 8" x 10" sheets of 1/10" grid graph paper; one 8" x 10" acetate sheet; one 8" x 10" mechanical negative; assorted pressure-sensitive conductor strips; termination circles; letters and numerals.
Net Each... **$5.75**

EXTRA KIT MATERIALS AND SUPPLIES

For photo layout, photo reversing, and nameplate kits listed above.

Kepro Number	Description	Quantity	For Kit	Net Each
MN-1212	Mechanical negative, 12" x 12"	1	Layout	$ 2.60
MS-3	Stable base drafting film, 18" x 24"	1	Layout	4.75
AT-810	Pressure-sensitive opaque letters, numerals in 3 sizes	4 fonts	Layout	6.90
TC-125-031	Pressure-sensitive ⅛" O.D. termination circles, on card	112	Layout	1.25
TC-250-062	Pressure-sensitive ¼" O.D. termination circles, on card	96	Layout	1.25
NP-EP1220	Sensitized blue enamel nameplate material, 12" x 20"	1	NP-303A	13.65
NP-SA1212	Sensitized anodized nameplate material, 12" x 12"	1	NP-404	14.48
NPD-1QT	Enamel nameplate developer	1 qt.	NP-303A	27.25
KD-1QT	Anodized nameplate developer	1 qt.	NP-404	7.55
NPE-1QT	Anodized nameplate etching powder	*	NP-404	7.90
RF-1024	Photo reversing film, 10" x 24"	1	FK-701	7.85
RFD-1QT	Reversing film developer	1 qt.	FK-701	6.70

*Makes 1 quart.

ETCHED CIRCUIT PROCESSING CHEMICALS

Kepro No.	Description	Quantity	Net Each
KD-1QT	Developing solution	1 qt.	$ 7.55
KD-1G	Developing solution	1 gal.	17.90
KD-5G	Developing solution	5 gal.	68.25
E-1QT	Etching solution	1 qt.	5.60
E-1G	Etching solution	1 gal.	9.80
E-5G	Etching solution	5 gal.	41.25

Kepro No.	Description	Quantity	Net Each
SP-1G	Etching powder	1 gal.	$ 9.70
SP-4G	Etching powder	4 gal.	26.80
ITP-1QT	Tin plating solution	4 qt.	13.75
ITP-1G	Tin plating solution	1 gal.	42.40
ITP-5G	Tin plating solution	5 gal.	199.10
RMP-700A	Resist marking pen	1	1.55

Copper Clad Circuit Boards

COPPER CLAD CIRCUIT BOARDS

High quality 1/16" laminated copper clad circuit boards meet standard NEMA grade tolerances (polyester boards equal or exceed NEMA tolerances). Available with copper foil on one or two sides; unsensitized for screen process applications, or photosensitized for photo-processed boards. Sensitized boards are packaged in light-proof enclosures, and are ready for exposure; no other sensitizing needed.

Prefix P (e.g., **P**2-1212G) indicates plain (unsensitized) boards; **prefix S** for photosensitized boards. Number following the prefix, **P** or **S**, indicates number of copper clad sides—one or both; e.g., **P1-36: 1** side copper clad plain board and **S2-36: 2** sides copper clad sensitized board.

1/16" XXXP PAPER BASE PHENOLIC, 1 OZ. COPPER

Size, Inches	Kepro Number	Net Each	Net per Pkg. of 5★, Lots of 1	5	10	20
3 x 6	P1-36	$ 1.70	$ 5.20	$ 4.40	$ 3.80	$ 3.20
4 x 6	P1-46	2.09	6.90	5.85	5.05	4.30
6 x 6	P1-66	2.85	10.35	8.80	7.55	6.40
7 x 10	P1-710	4.75	18.90	16.05	13.80	11.70
12 x 12	P1-1212	8.76	36.95	31.40	26.95	22.90
3 x 6	S1-36	2.30	7.85	6.65	5.75	4.85
4 x 6	S1-46	2.88	10.50	8.95	7.65	6.50
6 x 6	S1-66	4.04	15.70	13.35	11.45	9.75
7 x 10	S1-710	6.92	28.65	24.35	20.90	17.75
12 x 12	S1-1212	12.93	55.75	47.40	40.70	34.55

1/32" FR-4 GLASS EPOXY, 1 OZ. COPPER

3 x 6	P1.5-36G	$ 1.94	$ 6.25	$ 5.30	$ 4.55	$ 3.90
4.5 x 6	P1.5-46G	2.63	9.35	7.95	6.85	5.80
7 x 10	P1.5-710G	5.59	22.70	19.30	16.55	14.05
12 x 12	P1.5-1212G	10.34	44.05	37.45	32.15	27.30
3 x 6	P2.5-36G	2.01	6.55	5.55	4.80	4.05
4.5 x 6	P2.5-46G	2.74	9.85	8.35	7.20	6.10
7 x 10	P2.5-710G	5.94	24.25	20.60	17.70	15.05
12 x 12	P2.5-1212G	10.92	46.65	39.65	34.05	28.90
3 x 6	S1.5-36G	2.57	9.05	7.70	6.60	5.60
4.5 x 6	S1.5-46G	3.57	13.60	11.55	9.95	8.45
7 x 10	S1.5-710G	7.97	33.40	28.40	24.40	20.70
12 x 12	S1.5-1212G	14.95	64.80	55.10	47.30	40.20
3 x 6	S2.5-36G	3.09	11.40	9.70	8.30	7.05
4.5 x 6	S2.5-46G	4.36	17.15	14.60	12.50	10.65
7 x 10	S2.5-710G	9.86	41.90	35.60	30.60	26.00
12 x 12	S2.5-1212G	18.69	81.65	69.40	59.60	50.60

1/16" FR-4 GLASS EPOXY, 1 OZ. COPPER

3 x 6	P1-36G	$ 2.31	$ 7.95	$ 6.75	$ 5.80	$ 4.95
4 x 6	P1-46G	2.90	10.60	9.00	7.75	6.55
6 x 6	P1-66G	4.08	15.90	13.50	11.60	9.85
7 x 10	P1-710G	6.99	29.00	24.65	21.15	18.00
12 x 12	P1-1212G	13.08	56.40	47.95	41.95	34.95
3 x 6	P2-36G	2.39	8.25	7.00	6.00	5.10
4 x 6	P2-46G	3.00	11.00	9.35	8.05	6.80
6 x 6	P2-66G	4.22	16.50	14.05	12.05	10.25
7 x 10	P2-710G	7.27	30.25	25.70	22.10	18.75
12 x 12	P2-1212G	13.65	58.95	50.10	43.05	36.55
3 x 6	S1-36G	3.02	11.10	9.45	8.10	6.90
4 x 6	S1-46G	3.84	14.80	12.60	10.80	9.20
6 x 6	S1-66G	5.48	22.20	18.85	16.20	13.75
7 x 10	S1-710G	9.58	40.65	34.55	29.70	25.20
12 x 12	S1-1212G	18.12	79.05	67.20	57.70	49.00
3 x 6	S2-36G	3.56	13.55	11.50	9.90	8.40
4 x 6	S2-46G	4.56	18.05	15.35	13.20	11.20
6 x 6	S2-66G	6.56	27.05	23.00	19.75	16.75
7 x 10	S2-710G	11.54	49.45	42.05	36.10	30.65
12 x 12	S2-1212G	22.01	96.55	82.05	70.50	59.85

★To order, add 5 to Kepro Number (e.g., P2-12125M).

1/16" FR-4 GLASS EPOXY, 2 OZ. COPPER

Size, Inches	Kepro Number	Net Each	Net per Pkg of 5★, Lots of 1	5	10	20
3 x 6	P12-36G	$ 2.44	$ 8.50	$ 7.25	$ 6.20	$ 5.25
4 x 6	P12-46G	3.07	11.35	9.65	8.30	7.05
6 x 6	P12-66G	4.33	17.00	14.45	12.40	10.55
7 x 10	P12-710G	7.48	31.20	26.50	22.80	19.35
12 x 12	P12-1212G	14.09	60.90	51.75	44.45	37.75
3 x 6	P22-36G	2.85	10.35	8.80	7.55	6.40
4 x 6	P22-46G	3.62	13.80	11.75	10.05	8.55
6 x 6	P22-66G	5.16	20.75	17.65	15.15	12.85
7 x 10	P22-710G	8.95	37.80	32.15	27.60	23.45
12 x 12	P22-1212G	16.97	73.85	62.75	53.90	45.80
3 x 6	S12-36G	3.18	11.85	10.05	8.65	7.35
4 x 6	S12-46G	4.05	15.75	13.40	11.50	9.75
6 x 6	S12-66G	5.81	23.65	20.10	17.25	14.65
7 x 10	S12-710G	10.14	43.15	36.70	31.50	26.75
12 x 12	S12-1212G	19.27	84.25	71.60	61.50	52.25
3 x 6	S22-36G	4.11	16.05	13.65	11.70	9.95
4 x 6	S22-46G	5.30	21.40	18.20	15.60	13.25
6 x 6	S22-66G	7.68	32.10	27.30	23.45	19.90
7 x 10	S22-710G	13.57	58.60	49.80	42.80	36.35
12 x 12	S22-1212G	26.04	114.70	97.50	83.75	71.10

1/16" EPOXY COMPOSITE LAMINATE, 1 OZ. COPPER

3 x 6	P1-36B	$ 1.90	$ 6.10	$ 5.20	$ 4.45	$ 3.80
4.5 x 6	P1-46B	2.58	9.10	7.75	6.65	5.65
7 x 10	P1-710B	5.52	22.35	19.00	16.30	13.85
12 x 12	P1-1212B	10.20	43.40	36.90	31.70	26.90
3 x 6	P2-36B	2.06	6.80	5.80	4.95	4.20
4.5 x 6	P2-46B	2.82	10.20	8.65	7.45	6.30
7 x 10	P2-710B	6.08	24.90	21.15	18.20	15.45
12 x 12	P2-1212B	11.35	48.60	41.30	35.50	30.15
3 x 6	S1-36B	2.53	8.90	7.55	6.50	5.50
4.5 x 6	S1-46B	3.52	13.35	11.35	9.75	8.30
7 x 10	S1-710B	7.83	32.75	27.85	23.90	20.30
12 x 12	S1-1212B	14.65	65.50	55.70	47.80	40.60
3 x 6	S2-36B	3.14	11.65	9.90	8.50	7.20
4.5 x 6	S2-46B	4.44	17.50	14.90	12.80	10.85
7 x 10	S2-710B	10.07	42.85	36.40	31.30	26.55
12 x 12	S2-1212B	19.13	83.60	71.05	61.05	51.85

Our Stocks are Complete and up to date.

Write for information on new or unlisted items.

SONALERT® ELECTRONIC SIGNALS

A major advance in the audible signal warning devices. Produces a penetrating sound of 1900, 2900, 3500 or 4500 Hz by utilizing the piezoelectric principle. All circuitry is solid state for maximum efficiency, lowest current requirement and high reliability. Silicon transistor oscillator drives piezoelectric transducer to produce the desired output tone. The physical characteristics of the transducer determines the output frequency; and, this cannot be altered by external means. Output intensity is directly proportional to input voltage and ranges from 55 dB at min. to 95 dB at max. C. Draws only 28 mA max. (less than an indicator lamp), there are no mechanical points to arc and require maintenance, and there is no RF field generated. The Sonalert will operate in ambient temperatures from −30° C to +65° C; and, because of its solid state design, it is reliable, with a life expectancy of 10,000 hours. Used in computer systems in which stray RF could cause false readouts; in portable mine detectors in which ruggedness, minimum current and maximum reliability are prime considerations; also in aerospace projects requiring maximum efficiency and reliability. Sonalert is also used in volatile atmospheres where high density gas vapor could cause explosion. All have special silicon transistors and nylon case. Screw can be removed and solder or arkless quick-connect connections can be made. Max. panel thk. 1/4". No detailed MIL spec but widely used in military and aerospace applications; ask for Bulletin 4-10-03 for additional details. For a 48-page booklet on Sonalert uses, request Mallory Form 9-406.

CONTINUOUS TONE

Mallory Number	Freq. Hz*	Operating Power‡	Sound Intensity dB	Net Each
SBM2	2900	2-12 mA@1-5 V	55-68	**$ 6.34**
SBM428	2900	2-14 mA@4-28 V	64-78	**6.84**
SC1.5	3500	4 mA@1.5 V	60@1.5 V	**6.84**
SC110	2900	4-16 mA@30-120 V†	68-80	**11.56**
SC110D	1900	4-16 mA@30-120 V†	60-75	**12.84**
SC110E	1900	3-14 mA@30-120 V†	55-65	**12.84**
SC110F	2900	1-4 mA@30-120 V†	55-70	**10.74**
SC110H	4500	4-16 mA@30-120 V†	68-80	**13.92**
SC110N	2900	8-28 mA@30-120 V†	80-95	**14.74**
SC12	3500	14 mA@12 V	70@12 V	**6.84**
SC18	3500	16 mA@18 V	70@18 V	**6.84**
SC24	3500	16 mA@24 V	70@24 V	**6.84**
SC250	2900	4-16 mA@60-250 V†	68-80	**11.56**
SC250D	1900	4-16 mA@60-250 V†	60-75	**12.14**
SC250E	1900	3-14 mA@60-250 V†	55-65	**12.14**
SC250F	2900	1-4 mA@60-250 V†	55-70	**10.74**
SC250H	4500	4-16 mA@60-250 V†	68-80	**13.92**
SC6	3500	12 mA@6 V	70@6 V	**6.84**
SC616N	2900	4-16 mA@6-16 V	80-95	**10.12**
SC628	2900	3-14 mA@4-28 V	64-80	**8.07**
SC628A	2900	4-16 mA@6-28 V†	68-80	**11.56**
SC628AD	1900	4-16 mA@6-28 V†	60-75	**12.84**
SC628AE	1900	3-14 mA@6-28 V†	55-65	**12.84**
SC628AF	2900	1-4 mA@6-28 V†	55-70	**10.74**
SC628AH	4500	4-16 mA@6-28 V†	68-80	**13.92**
SC628AN	2900	8-28 mA@6-28 V†	80-95	**13.92**
SC628D	1900	3-14 mA@6-28 V	60-75	**8.75**
SC628E	1900	3-8 mA@6-28 V	55-68	**8.12**
SC628F	2900	0.5-3 mA@6-28 V	55-70	**7.47**
SC628H	4500	3-14 mA@6-28 V	68-80	**8.75**
SC628L	2900	3-14 mA@6-28 V	68-80	**7.47**
SC648	2900	3-14 mA@10-48 V	68-80	**8.07**
SC648A	2900	4-16 mA@10-48 V†	68-80	**10.74**
SC648AD	1900	4-16 mA@10-48 V†	60-75	**12.84**
SC648AH	4500	4-16 mA@10-48 V†	68-80	**13.92**
SC648AN	2900	8-28 mA@10-48 V†	80-95	**13.92**
SC648D	1900	3-14 mA@10-48 V	60-75	**8.26**
SC648H	4500	3-14 mA@10-48 V	68-80	**8.48**
SNP2	2900	2-12 mA@1-5 V	55-68	**6.34**
SNP428	2900	2-14 mA@4-28 V	64-78	**6.84**
SNP428F	2900	0.5-3 mA@4-28 V	55-70	**6.34**

WARBLING TONE

Produces two tones alternately when used with additional continuous tone unit.

Use with **SC628D** or **H.**				
SC628FJW▲	2900	3-16 mA@6-28 V	68-80	**$12.14**
SC628W■	2900	3-16 mA@6-28 V	68-80	**12.14**

Use with **SC628E.**				
SC628FJW▲	2900	3-14 mA@6-28 V	55-70	**$12.14**
SC628FW■	2900	3-14 mA@6-28 V	55-70	**12.14**

▲Slow warble. ■Fast warble.

SHORT PULSE

Turn on and off at 0.5 to 1.5 pulses per second, depending on voltage at 10% duty cycle.

SC110FK	2900	4-16 mA@30-120 V†	55-70	**$16.02**
SC110K	2900	4-16 mA@30-120 V†	68-80	**16.94**
SC628FK	2900	3-14 mA@6-28 V	55-70	**12.14**
SC628K	2900	3-14 mA@6-28 V	68-80	**12.14**

CHIRP TONE

A unique sound which pulses at 20-60 pulses per second.

SC110Q	2900	3-10 mA@30-120 V	68-80	**$ 7.66**
SC616Q	2900	1-4 mA@6-16 V	68-78	**8.09**

CHIME TONE

A pleasant sound which chimes every one or two seconds.

SC616CP	2900	3-8 mA@6-16 V	68-80	**$13.13**

SLOW PULSE

Turn on and off at 0.5 to 1.5 pulses per second, depending on voltage at 50% duty cycle.

Mallory Number	Freq. Hz*	Operating Power‡	Sound Intensity dB	Net Each
SBM616J	2900	1-4 mA@6-16 V	68-78	**$ 8.12**
SC110DJ	1900	4-16 mA@30-120 V†	60-75	**17.03**
SC110EJ	1900	3-14 mA@30-120 V†	55-68	**16.72**
SC110FJ	2900	4-16 mA@30-120 V†	55-70	**16.02**
SC110HJ	4500	4-16 mA@30-120 V†	68-80	**16.69**
SC110NJ	2900	8-28 mA@30-120 V†	80-95	**16.02**
SC110J	2900	4-16 mA@30-120 V†	68-80	**16.94**
SC250DJ	1900	4-16 mA@60-250 V†	60-75	**16.96**
SC250EJ	1900	3-14 mA@60-250 V†	55-68	**16.77**
SC250FJ	2900	4-16 mA@60-250 V†	55-70	**16.02**
SC250HJ	4500	4-16 mA@60-250 V†	68-80	**16.62**
SC250J	2900	4-16 mA@60-250 V†	68-80	**15.10**
SC616NJ	2900	4-16 mA@6-16 V	80-95	**10.74**
SC616J	2900	1-4 mA@6-16 V	68-78	**8.82**
SC616J-1	2900	1-4 mA@6-16 V	68-78	**8.82**
SC628ADJ	1900	4-16 mA@6-28 V†	60-75	**16.79**
SC628AEJ	1900	3-14 mA@6-28 V†	55-68	**16.62**
SC628AFJ	2900	4-16 mA@6-28 V†	55-70	**16.02**
SC628AHJ	4500	4-16 mA@6-28 V†	68-80	**16.48**
SC628ANJ	2900	8-28 mA@6-28 V†	80-95	**16.02**
SC628AJ	2900	4-16 mA@6-28 V†	68-80	**16.02**
SC628DJ	1900	3-14 mA@6-28 V	60-75	**12.96**
SC628FJ	2900	3-14 mA@6-28 V	55-70	**12.14**
SC628HJ	4500	3-14 mA@6-28 V	68-80	**13.92**
SC628J	2900	3-14 mA@6-28 V	68-80	**12.14**
SC648ADJ	1900	4-16 mA@10-48 V†	60-75	**16.79**
SC648ANJ	2900	8-28 mA@10-48 V†	80-95	**16.02**
SC648AJ	2900	4016 mA@10-48 V†	68-80	**16.02**

FAST PULSE

Turn on and off at 2 to 9 pulses per second, depending on voltage at 50% duty cycle.

SBM616P	2900	1-4 mA@6-16 V	68-78	**$ 8.12**
SC110DP	1900	4-16 mA@30-120 V†	60-75	**16.94**
SC110EP	1900	3-14 mA@30-120 V†	55-68	**16.02**
SC110FP	2900	4-16 mA@30-120 V†	55-70	**16.02**
SC110HP	4500	4-16 mA@30-120 V†	68-80	**16.94**
SC110NP	2900	8-28 mA@30-120 V†	80-95	**16.02**
SC110P	2900	4-16 mA@30-120 V†	68-80	**17.27**
SC250DP	1900	4-16 mA@60-250 V†	60-75	**16.48**
SC250EP	1900	3-14 mA@60-250 V†	55-68	**16.31**
SC250FP	2900	4-16 mA@60-250 V†	55-70	**16.02**
SC250HP	4500	4-16 mA@60-250 V†	68-80	**16.16**
SC250P	2900	4-16 mA@60-250 V†	68-80	**15.10**
SC616NP	2900	4-16 mA@6-16 V	80-95	**11.56**
SC616P	2900	1-4 mA@6-16 V	68-78	**8.82**
SC616P-1	2900	1-4 mA@6-16 V	68-78	**8.82**
SC628ADP	1900	4-16 mA@6-28 V†	60-75	**16.33**
SC628AEP	1900	3-14 mA@6-28 V†	55-68	**16.14**
SC628AFP	2900	4-16 mA@6-28 V†	55-70	**16.02**
SC628AHP	4500	4-16 mA@6-28 V†	68-80	**16.02**
SC628ANP	2900	8-28 mA@6-28 V†	80-95	**16.02**
SC628AP	2900	4-16 mA@6-28 V†	68-80	**16.02**
SC628DP	1900	3-14 mA@6-28 V	60-75	**12.14**
SC628FP	2900	3-14 mA@6-28 V	55-70	**12.14**
SC628HP	4500	3-14 mA@6-28 V	68-80	**13.92**
SC628P	2900	3-14 mA@6-28 V	68-80	**13.11**
SC648ADP	1900	4-16 mA@10-48 V†	60-75	**16.33**
SC648ANP	2900	8-28 mA@10-48 V†	80-95	**16.02**
SC648AP	2900	4-16 mA@10-48 V†	68-80	**16.02**

COMBINED CONTINUOUS OR PULSING TONE

When power terminals are connected, the third terminal may be switched to negative to select a continuous tone or switched to positive to select a pulsing tone.

SBM616JC§	2900	2-10 mA@6-16 V	68-78	**$ 9.40**
SBM616PC‡	2900	2-10 mA@6-16 V	68-78	**9.40**

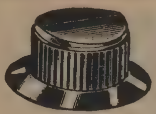
§Continuous slow pulse. ‡Continuous fast pulse.
*Tolerance, ±500 Hz. ‡Ranges given are minimum and maximum. †AC/DC non-polar units; all others DC only.

RAYTHEON Raytheon Control Knobs

MS91528 (STANDARD) AND DESIGNER SERIES CONTROL KNOBS

-1-

-2-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Approved types per MS91528, Rev. C; cross reference (MIL No. to Raytheon No.) available on request. Eight standard knob types in six basic sizes to meet your every requirement. **Order by complete Catalog Number:** E.g., G 70-3BL-2G indicates **Gray** color knob; approx. diameter of knob in hundredths of inches is **70** (.70"); description of knob is **-3** (see table below); knob is back lighted (**BL**); shaft size is **-2** (see table below); finish is **G** (matte).

Prefix (Color)		1st Number (Size)		2nd Number (Description)	3rd Number (Shaft Size)		Suffix (Finish)
No prefix	Black	50	½"	*	-1	⅛"	†
DS	Alum. cap	70	7/10"	*	-2	¼"	†
G‡	Gray	90	9/10"	*	-3	5/16"	
R‡	Red	125	1¼"	*	-4	.267"	
		175	1¾"	*			
		225	2¼"	*			

***Description:** **-1,** round no skirt; **-2,** round plain skirt; **-3,** round dial skirt; **-4,** pointer no skirt; **-5,** pointer plain skirt; **-6,** crank (spinner); **-7,** bar pointer, no skirt; **-8,** bar pointer, dial skirt with pointer mark. **BD,** black dot; **BL,** back lighted dial skirt; **CB,** concentric base for outer shaft has no cap, shaft hole drilled through; **LK,** knob lock pointer used with knob lock; **NP,** no pointer; **WD,** 5/32" white dot on cap; **WL,** white line. †**Finish:** No suffix, mirror finish; suffix G, matte (dull) finish. ‡Not applicable to all types listed, write for complete information on colored knobs.

DESIGNER SERIES CONTROL KNOBS

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
DS 70-1-1*	$1.49	DS 70-2BD-2G	$2.17	DS 90-2BD-2	$2.48
DS 70-1-1G*	1.54	DS 70-3-1†	1.99	DS 90-2BD-2G	2.67
DS 70-1BD-1	1.79	DS 70-3-1G†	2.12	DS 90-3-2†	2.11
DS 70-1BD-1G	1.98	DS 70-3-2†	1.98	DS 90-3-2G†	2.20
DS 70-1BD-2	1.80	DS 70-3-2G†	2.12	DS 90-4-2	2.26
DS 70-1BD-2G	1.98	DS 70-4-2	1.93	DS 90-4-2G	2.32
DS 70-1-2	1.64	DS 70-4-2G	2.02	DS 90-5-2	2.50
DS 70-1-2G	1.66	DS 70-5-2	2.83	DS 90-5-2G	2.52
DS 70-1-3*	1.93	DS 70-5-2G	3.00	DS 125-1-2	2.46
DS 70-1-3G*	2.01	DS 90-1-2	1.90	DS 125-1-2G	2.50
DS 70-2-1	2.01	DS 90-1-2G	2.01	DS 125-2-2	2.67
DS 70-2-1G	2.20	DS 90-1-3*	2.65	DS 125-2-2G	2.82
DS 70-2BD-1	2.20	DS 90-1BD-1G	3.39	DS 125-3-2†	2.76
DS 70-2BD-1G	2.39	DS 90-1BD-2	2.10	DS 125-3-2G†	2.87
DS 70-2-2	1.82	DS 90-1BD-2G	2.42	DS 125-6-2	5.50
DS 70-2-2G	1.90	DS 90-2-2	2.11	DS 175-6-2G	2.27
DS 70-2BD-2	1.98	DS 90-2-2G	2.31		

COLOR KNOBS PER MS91528

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
G50-1-1*	$1.80	G70-3NP-2G	$2.92	G90-3CB-2G	$2.72
G50-1-1G*	1.97	G70-4-2	2.25	G90-3NP-2G	2.75
G50-2-1	2.17	G70-4-2G	2.42	G90-4-2G	2.42
G50-2-1G	2.33	G70-5-2	2.22	G90-5-2	2.42
G50-3-1G†	2.72	G70-5-2G	2.38	G90-5-2G	2.58
G50-4-1	2.05	G70-7WL-2G	3.22	G90-7WL-2G	3.38
G50-4-1G	2.22	G70-8WL-2G	4.72	G90-8WL-2G	4.83
G50-5-1G	2.30	R70-1WD-1	2.33	G125-1-2	2.58
R50-1WD-1	2.08	R70-1WD-1G	2.50	G125-1-2G	2.75
R50-1WD-1G	2.25	R70-2-2	2.17	G125-2-2G	2.83
G70-1-1*	2.05	R70-2-2G	2.33	G125-3-2†	3.75
G70-1-1G*	2.22	R70-3-2	3.00	G125-3-2G†	3.92
G70-1-2	2.17	R70-3-2G	3.17	G125-6-2	6.80
G70-2-2	2.17	G90-1-1G	3.22	G125-6-2G	6.97
G70-2-2G	2.33	G90-1-2G	2.13	G175-1-2	4.38
G70-2CB-2G	2.72	G90-1CB-2G	2.22	G175-1-2G	4.55
G70-3-2†	2.97	G90-2-2	2.08	G175-3-2†	6.13
G70-3-2G†	3.13	G90-2-2G	2.25	G175-3-2G†	6.30
G70-3CB-2G	2.72	G90-3-2	2.80	G175-6-2	8.92
		G90-3-2G	2.97	G225-6-2G	11.42

SPECIAL BLACK KNOBS PER MS91528

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
50-1WD-1	$1.92	70-2WD-1	$2.13	90-1WD-2	$2.08
50-1WD-1G	2.08	70-2WD-1G	2.30	90-1WD-2G	2.25
50-2WD-1	1.97	70-2WD-2	2.22	90-2CB-2§	2.05
50-2WD-1G	2.13	70-2WD-2G	2.38	90-2CB-2G§	2.22
70-1-3*	2.30	70-3CB-2	1.80	90-2WD-2	2.25
70-1-3G*	2.47	70-3CB-2G	1.97	90-2WD-2G	2.42
70-1CB-2G	1.50	70B-3CB-2‡	2.25	90-3CB-2§	2.42
70B-1CB-2‡	1.97	70B-3CB-2G‡	2.42	90-3CB-2G§	2.58
70B-1CB-2G‡	2.13	90-1-3*	2.72	90-3CB-4§	2.92
70-1LK-2	2.67	90-1-3G*	2.88	90-3CB-4G§	3.08
70-1LK-2G	2.83	90-1CB-2§	1.80	125-1LK-2	3.05
70-1WD-1	2.08	90-1CB-2G§	1.97	125-1LK-2G	3.22
70-1WD-1G	2.25	90-1CB-4§	2.25	125-1WD-2G	2.47
70-1-WD-2	2.05	90-1CB-4G§	2.42	125-3CB-2§	3.30
70-1-WD-2G	2.22	90-1LK-2	2.67	125-3CB-2G§	3.47
70-2CB-2G	1.97	90-1LK-2G	2.83		
70B-2CB-2G‡	2.42	90-1WD-1G	3.42		

STANDARD BLACK KNOBS PER MS91528

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
50-1-1*	$1.67	70-3NP-2	$2.08	90-8WL-2G	$4.13
50-1-1G*	1.83	70-3NP-2G	2.25	125-1-2	2.05
50-2-1	1.72	70-4-1	2.00	125-1-2G	2.22
50-2-1G	1.88	70-4-1G	2.17	125-2-2	2.13
50-3-1†	2.30	70-4-2	1.97	125-2-2G	2.30
50-3-1G†	2.47	70-4-2G	2.13	125-3-2†	2.92
50-3BL-1G	8.30	70-5-1	2.08	125-3-2G†	3.08
50-3NP-1	2.00	70-5-1G	2.25	125-3BL-2G	9.92
50-3NP-1G	2.17	70-5-2	1.80	125-3NP-2	2.58
50-4-1	1.80	70-5-2G	1.97	125-3NP-2G	2.75
50-4-1G	1.97	70-7WL-2	2.58	125-6-2	6.75
50-5-1	1.80	70-7WL-2G	2.75	125-6-2G	6.92
50-5-1G	1.97	70-8WL-2	3.50	125-7-2	4.97
70-1-1*	1.80	70-8WL-2G	3.67	125-7-2G	5.13
70-1-1G*	1.97	90-1-1G*	3.08	175-1-2	3.75
70-1-2	1.80	90-1-2	1.83	175-1-2G	3.92
70-1-2G	1.97	90-1-2G	2.00	175-2-2	4.17
70B-1-2‡	2.92	90-2-1G	3.25	175-2-2G	4.33
70B-1-2G‡	3.08	90-2-2	2.00	175-3-2†	4.92
70-2-1	1.83	90-2-2G	2.17	175-3-2G†	5.08
70-2-1G	2.00	90-3-1G†	3.80	175-3BL-2G	13.58
70-2-2	1.83	90-3-2†	2.47	175-3NP-2	4.47
70-2-2G	2.00	90-3-2G†	2.63	175-3NP-2G	4.63
70B-2-2‡	4.08	90-3BL-2G	9.67	175-6-2	8.80
70B-2-2G‡	4.25	90-3NP-2	2.25	175-6-2G	8.97
70-3-1†	2.22	90-3NP-2G	2.42	225-1-2	5.05
70-3-1G†	2.38	90-4-1G	3.22	225-1-2G	5.22
70B-3-1‡	3.97	90-4-2	1.92	225-2-2	6.05
70B-3-1G‡	4.13	90-4-2G	2.08	225-2-2G	6.22
70-3-2†	2.28	90-5-2	2.00	225-3-2†	6.63
70-3-2G†	2.47	90-5-2G	2.17	225-3-2G†	6.80
70B-3-2‡	3.22	90-7WL-2	2.92	225-3NP-2G	6.25
70B-3-2G‡	3.38	90-7WL-2G	3.08	225-6-2	11.00
70-3BL-2G	5.22	90-8WL-2	3.97	225-6-2G	11.17

TACTILE SHAPE KNOBS PER MS91528

Final figure in number indicates tactile symbol and color cap; 1—Intensity, Blue; 2—Tune, Orange; 3—Dimmer, White; 4—Gain, Red: 5—Focus, Violet; 6—Range, Yellow; 7—Bearing, Green; 8—Marker, Gray.

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
70-1-2G-1	$2.83	70-3-2G-1	$3.38	90-2-2G-4	$3.63
70-1-2G-3	2.83	70-3-2G-2	3.38	90-2-2G-5	3.63
70-1-2G-4	2.83	70-3-2G-3	3.38	90-2-2G-6	3.75
70-1-2G-5	2.83	70-3-2G-4	3.38	90-4-2G-6	4.22
70-2-2G-1	2.92	90-1-2G-1	3.38	90-5-2G-6	5.25
70-2-2G-2	2.92	90-1-2G-2	3.38	125-6-2G-7	10.17
70-2-2G-3	2.92	90-1-2G-3	3.38	125-6-2G-8	10.17
70-2-2G-4	2.92	90 1-2G-4	3.38	175-6-2G-7	12.58
70-2-2G-5	2.92	90-2-2G-1	3.63	175-6-2G-8	12.58
70-2-2G-6	3.08	90-2-2G-3	3.63		

*Standard or concentric, inner shaft. †With pointer. ‡Round bar. §Used also with Designer Series as concentric base.

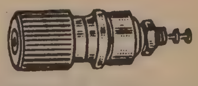
• ★OEM DISCOUNT SCHEDULES

Discounts are applied per item—NOT total units per order.

Quantity	Deduct from List	Quantity	Deduct from List	Quantity	Deduct from List
1–199	None	200–999	20%	1000–4999	25%

KNOBS AND ACCESSORIES CONTINUED ON NEXT PAGE

BINDING POSTS



Available in two models: Accepting standard banana plug; or, standard .080 test prod. Four other connections include: Wire through center hole; prod through center hole; wire coiled around post and clamped; turret terminal for solder connection. Nylon body with tin-plated metal parts to withstand 50-hour salt spray test; 250-hour 95% humidity test. Rated 30 amps.

Raytheon Cat. No.	Color	Type	Net Each, Lots of* 1-199	200-499	500-999
BP-100B	Black	Prod	$4.05	$3.32	$2.77
BP-101R	Red	Prod	4.22	3.46	2.89
BP-105B	Black	Banana	3.55	2.92	2.43
BP-106R	Red	Banana	3.75	3.08	2.57

*Colors per style may be mixed for max. discount; minimum order 10 per style.

RAYTHEON

Raytheon Knobs, Hardware

KNOB CROSS REFERENCE TO MS91528

MS-91528B	Raytheon Cat. No.	MS-91528B	Raytheon Cat. No.	MS-91528B	Raytheon Cat. No.
-0C1B	50-1WD-1G	-1N2B	70-1-2G	-2P1B	90-4-1G
-0D1B	50-2-1G	-1N2BC	70-1CB-2G	-2P2B	90-4-2G
-0D1G	G50-2-1G	-1N2G	G70-1-2G	-2P2G	G90-4-2G
-0E1B	50-2WD-1G	-1N2GC	G70-1CB	-3C2B	125-1WD
-0F1B	50-3-1G		-2G		-2G
-0F1G	G50-3-1G	-1O1B	70-3BL-1G	-3D2B	125-2-2G
-0G1B	50-3NP-1G	-1O2B	70-3BL-2G	-3D2BC	125-2CB-2G
-0G1G	G50-3NP	-1P1B	70-4-1G	-3D2G	G125-2-2G
	-1G	-1P2B	70-4-2G	-3F2B	125-3-2G
-0K1B	50-5-1G	-1P2G	G70-4-2G	-3F2BC	125-3CB-2G
-0K1G	G50-5-1G	-2C1B	90-1WD-1G	-3F2G	G125-3-2G
-0N1B	50-1-1G	-2C2B	90-1WD-2G	-3G2B	125-3NP-2G
-0N1G	G50-1-1G	-2D1B	90-2-1G	-3G2G	G125-3NP
-0O1B	50-3BL-1G	-2D2B	90-2-2G		-2G
-0P1B	50-4-1G	-2D2BC	90-2CB-2G	-3N2B	125-1-2G
-0P1G	G50-4-1G	-2D2G	G90-2-2G	-3N2BC	125-1CB-2G
-1A2B	70-7WL-2G	-2D2GC	G90-1CB	-3N2G	G125-1-2G
-1A2G	G70-7WL		-2G	-3O2B	125-3BL-2G
	-2G	-2E1B	90-2WD-1G	-3R2B	125-7-2G
-1B2B	70-8WL-2G	-2E2B	90-2WD-2G	-3R2G	G125-7-2G
-1B2G	G70-8WL	-2F1B	90-3-1G	-3S2B	125-6-2G
	-2G	-2F2B	90-3-2G	-3S2G	G125-6-2G
-1C1B	70-1WD-1G	-2F2BC	90-3CD-2G	-4D2B	175-2-2G
-1C2B	70-1WD-2G	-2F2G	G90-3-2G	-4D2G	G175-2-2G
-1D1B	70-2-1G	-2F2GC	G90-3CD	-4F2B	175-3-2G
-1D2B	70-2-2G		-2G	-4F2G	G175-3-2G
-1D2BC	70-2CB-2G	-2G2B	90-3NP-2G	-4G2B	175-3NP
-1D2G	G70-2-2G	-2G2G	G90-3NP		-2G
-1D2GC	G70-2CB		-2G	-4G2G	G175-3NP
	-2G	-2K1B	90-5-1G		-2G
-1E1B	70-2WD-1G	-2K2B	90-5-2G	-4N2B	175-1-2G
-1E2B	70-2WD-2G	-2K2G	G90-5-2G	-4N2G	G175-1-2G
-1F1B	70-3-1G	-2L2B	90-7WL-2G	-4O2B	175-3BL-2G
-1F2B	70-3-2G	-2L2G	G90-7WL	-4S2B	175-6-2G
-1F2BC	70-3CB-2G		-2G	-4S2G	G175-6-2G
-1F2G	G70-3-2G	-2M2B	90-8WL-2G	-5D2B	225-2-2G
-1F2GC	G70-3CB	-2M2G	G90-8WL	-5D2G	G225-2-2G
	-2G		-2G	-5F2B	225-3-2G
-1G2B	70-3NP-2G	-2N1B	90-1-1G	-5F2G	G225-3-2G
-1G2G	G70-3NP	-2N1G	G90-1-1G	-5G2B	225-3NP-2G
	-2G	-2N2B	90-1-2G	-5G2G	G225-3NP
-1K1B	70-5-1G	-2N2BC	90-1CB-2G		-2G
-1K2B	70-5-2G	-2N2G	G90-1-2G	-5N2B	225-1-2G
-1K2G	G70-5-2G	-2N2GC	G90-1CB	-5N2G	G225-1-2G
-1N1B	70-1-1G		-2G	-5S2B	225-6-2G
-1N1G	G70-1-1G	-2O2B	90-3BL-2G	-5S2G	G225-6-2G

SELF-LOCKING PUSH-TO ENGAGE KNOBS

Designed for maintaining control settings under shock and vibration. Knobs have zero backlash allowing for infinite resolution. Sturdy polycarbonate plastic construction. Available in mirror or matte finish. Custom variations available; complete information on request. **Model Number Description: PTE,** push-to-engage; **G,** gray (omit for black) color; **70,** ¼" dia.; **2,** skirted round or **3,** dial skirted round; **1,** ⅛" shaft hole, **2,** ¼" shaft hole; **G,** matte finish (omit for mirror finish); **NP,** no pointer.

Black Finish		Gray Finish	
Raytheon No. PTE-	1-24	Raytheon No. PTE-	1-24
70-2-1	$11.67	70-3NP-1	$13.58
70-2-1G	11.83	70-3NP-1G	13.75
70-2-2	10.75	70-3NP-2	12.67
70-2-2G	10.92	70-3NP-2G	12.83

★OEM DISCOUNT SCHEDULE FOR KNOBS & ACCESSORIES

Discounts are applied on units per item—NOT total units per order. **Quantity:** 1-99, none; 100-199, −15%; 200-499, −20%; 500-999, −30%.

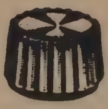
KNOB LOCKS

Use with standard control knobs for a dependable means of holding precise or critical control settings under shock or vibration conditions. Very little larger than the knob itself. An eighth-turn locks the knob firmly. Mounts directly on threaded bushing of the control.

Raytheon Cat. No.	For Knob Series	Finish	O.D.	Thread	1-199
KL701	70	Mirror	1"	⅜"-32	$2.92
KL701G	70	Matte	1"	⅜"-32	3.08
KL702†	70	Mirror	1"	¼"-32	3.38
KL702G†	70	Matte	1"	¼"-32	3.55
KL703*	70	Mirror	1"	⅜"-32	5.00
KL703G*	70	Matte	1"	⅜"-32	6.42
KL901	90	Mirror	1 5/16"	⅜"-32	3.63
KL901G	90	Matte	1 5/16"	⅜"-32	3.80
KL902*	90	Mirror	1 5/16"	⅜"-32	6.97
KL902G*	90	Matte	1 5/16"	⅜"-32	7.13
KL1251	125	Mirror	1⅝"	⅜"-32	4.13
KL1251G	125	Matte	1⅝"	⅜"-32	4.30
KL1252*	125	Mirror	1⅝"	⅜"-32	7.50
KL1252G*	125	Matte	1⅝"	⅜"-32	7.67

*Splash proof. †⅛" shaft.

400 AND PANELRAMA SERIES CONTROL KNOBS



-R-
(Panelrama)

-D-

Modern styling for commercial or industrial use. Series 400 available in three colors. Durable construction of high impact acrylonitrite-butadiene-styrene (ABS) with lusterless finish. Metal bushing with two set screws. **Size:** Prefix indicates size: **407,** .725" dia.; **409,** .875" dia.; **412,** 1.255" dia.; **PS6,** .625" dia.; **PS7,** .725" dia.; **PS12,** 1.255" dia. **Style:** Following letter denotes style: **R,** round; **D,** round, dial skirt; **P,** bar pointer; **PD,** bar pointer, dial skirt. **Shaft Size:** Following number indicates shaft size: **1,** ⅛" shaft; **2,** ¼" shaft. **Color:** Last number indicates color: **1,** black; **3,** beige; **7,** blue-gray.

400 SERIES CONTROL KNOBS

Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199	Raytheon Cat. No.	1-199
407D1K1	$1.83	407PD2K1	$2.08	412D2K1	$2.08
407D2K1	1.72	409D2K1	1.92	412D2K3	2.08
407D2K3	1.80	409D2K3	1.97	412P2K1	2.25
407D2K7	1.75	409R2K1	1.72	412PD2K1	2.42
407R1K1	1.67	409R2K3	1.80	412R2K1	1.88
407R2K1	1.58	409P2K1	1.92	412R2K3	2.00
407R2K3	1.72	409PD2K1	2.13		
407R2K7	1.80	409PD2K3	2.13		

PANELRAMA SERIES CONTROL KNOBS

Black body with aluminum disk.

PS6D2K1R	$2.83	PS7D2K1R	$2.47	PS12D2K1R	$2.92
PS7R2K1R	2.33	PS7PD2K1R	2.83		

KNOB REDUCING BUSHINGS

Converts knobs to fit smaller shafts by reducing knob hole size.

Raytheon Cat. No.	Description	Net Each
RB100	Converts ¼" shaft to ⅛"	$0.42
RB200	Converts ¼" shaft to 3/16"	.47

SHAFT LOCKS

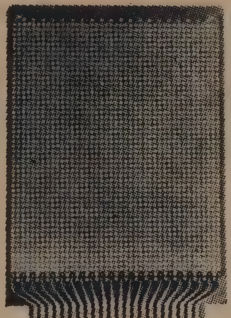
Raytheon Cat. No.	Color	For Shaft	Net Each, Lots of		
			1-199	200-499	500-999
SL-100B	Black	¼"	$0.92	$0.75	$0.63
SL-101R	Red	¼"	.92	.75	.63
SL-110B*	Black	¼"	.92	.75	.63
SL-105B	Black	⅛"	.92	.75	.63

*Short style for use under knobs.

Vector Plugbords®

DIP PLUGBORDS

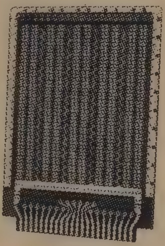
3677-2



3662

Plugbord material is epoxy glass or FR4 glass composite material, except models with WE suffix are made only in epoxy glass. Contacts on all models are gold flashed nickel plate. **3682 Series:** Mount wrap post sockets. Have interleaved etched tinned power and ground buses, punched .042″ holes on 0.1″ x 0.1″ grid. -4 model has O/A etched tinned ground plane with etched clearance area on each hole. **3662 and 3719 Series:** Upper area is copper free and punched with .042″ holes on 0.1″ x 0.1″ grid. **3677 Series:** Have etched 3-hole tinned pads and interleaved buses for Vcc and ground, punched .042″ holes on 0.1″ x 0.1″ grid, holds 24 14-pin or 21 16-pin DIP's. **4112 Series:** Have punched .042″ holes on 0.1″ x 0.1″ grid, groups of 3-hole etched, tinned pads, interleaved zig-zag bus, back side tinned ground plane with etched clearance holes. Ideal for soldered circuits mixing any size DIP's, transistors or discretes. **4066 Series:** Ideal for wrapped wire construction. Has O/A punched .042″ holes on 0.1″ x 0.1″ grid, two interleaved tinned zig-zag buses plus back side tinned ground plane with etched clearance holes. **4493 and 4494 Series:** Have universal bus pattern for any DIP with leads on 0.1″ x 0.3″, 0.4″, 0.6″ or 0.9″ centers plus option zone to mount included heat sink, and 2 regulators (not included) or conventional DIP's.

3719-1



4112-4

Vector No.	Contacts	Spacing In.	Plugbord Type	Size, In.	Receptacle	Net Each
3677	44	.156	Solder	4.5 x 9.6	R644	**$14.53**
3677-2	44	.156	Solder	4.5 x 6.5	R644	**12.93**
3682	44	.156	W.W.	4.5 x 9.6	R644	**14.86**
3682-2	44	.156	W.W.	4.5 x 6.5	R644	**12.58**
3682-4	44	.156	W.W.	4.5 x 6.5	R644	**14.38**
3662	44	.156	Plain	4.5 x 6.5	R644	**10.96**
3662-2	44	.156	Plain	4.5 x 9.6	R644	**11.83**
3662-5	44	.156	Plain	4.5 x 4.5	R644	**8.37**
3719-1	72	.100	Plain	4.5 x 6.5	R636-1	**10.71**
3719-4	72	.100	Plain	4.5 x 9.6	R636-1	**13.20**
3719-5	72	.100	Plain	4.5 x 4.5	R636-1	**11.22**
848PWE	35*	......	Plain	4.5 x 6.5	R635	**19.53**
3797	30	......	Plain	2.73 x 4.5	R630	**7.15**
3797-2	30	......	Solder	2.73 x 4.5	R630	**10.58**
4112-4	44	.156	Solder	4.5 x 6.5	R644	**17.11**
4112-5	44	.156	Solder	4.5 x 4.5	R644	**13.61**
4066-4	36/72	.100	W.W.	4.5 x 6.5	R636-1	**14.50**
4066-5	36/72	.100	W.W.	4.5 x 4.5	R636-1	**21.15**
4493	36/72	.100	W.W.	4.5 x 6.5	R636-1	**21.11**
4493-1	36/72	.100	W.W.	4.5 x 9.6	R636-1	**25.97**
4494	44	.156	W.W.	4.5 x 6.5	R644	**17.45**
R636-1‡	72	.100	Receptacle	4.44 x .34 x .610		**7.77**
R644#	44	.156	Receptacle	4.36 x .34 x .442		**4.97**
R644-1‡	44	.156	Receptacle	4.36 x .41 x .730		**8.39**
R644-2‡	44	.100	Receptacle	3.16 x .37 x .625		**5.35**
R644-3‡	44	.156	Receptacle	4.36 x .41 x .550		**5.08**
R630#	30	.156	Receptacle	3.27 x .34 x .442		**6.74**

*Elco Varicon contacts. #Has solder tabs. ‡0.025″ sq. wire wrap tail model.

DISCRETE PLUGBORDS

Prepunched .062″ holes on alternate 0.1″ centers. Contacts are nickel/gold.

Vector No.	Type	Contacts	Size, In.	Net Each
838A	Epoxy paper, 1 side	22 etched	4½ x 6½	**$ 6.52**
838AWE-1GN	Epoxy glass, 2 sides	43 etched	4½ x 6½	**13.78**

CIRCBORDS

Popular etched plugbord wiring patterns without expensive finger contacts have universal I/O area for mounting any type of connector. Epoxy glass composite material etched and tinned one side (except 8005). Measure 4.5″ x 6.5″ x .062″.

Vector No. 8003—Pad-per-hole-Quick solder mounting of 60 16-pin DIP's. Net Each.......................................**$10.85**

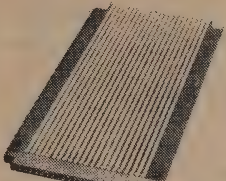
Vector No. 8004—Clearance ground planemounts 50 16-pin DIP's compact or 40 16-pin DIP's spaced or mixed. Net Ea.. **$10.85**

Vector No. 8005—Bare, unclad. Mounts 60 16-pin DIP's compact or 48 16-pin DIP's spaced or mixed. Net Each..........**$3.54**

Vector No. 8001—3-hole pads and 2 buses for soldering and wire wrapping. Mounts twenty 16-pin DIP's. Net Each.... **$10.85**

Vector No. 8002—Has 2 buses. Best for wire wrapping. Mounts 35 16-pin DIP's. Net Each.................................**$10.85**

CARD EXTENDERS



Provide means of working on operating Plugbord by providing extensions to raise Plugbord out of equipment. Supplied with nickel plated, gold plated contacts and mounted receptacles.

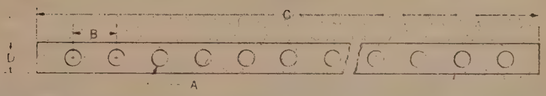
Vector No.	For Plugbord Series	Size (Ins.)	Net Each
3690	838, 3662, 3677, 3682	4.5″ x 6.5″	**$17.41**
3690-2	3719	4.5″ x 11″	**26.39**
3690-10	3797	2.73″ x 5.5″	**24.88**
3690-12	8800 V	9.99″ x 7.5″	**29.33**
3690-16	4610	4.5″ x 6.5″	**23.35**

SOLDERLESS BUS KLIPS/STRIPS

Accept round component leads .015″ to .032″ dia. or .025″ sq. pins. Single continuous interior beryllium copper contact spring with fused tin-lead coating is housed in brass shell with insulated sides. Available with or without riveted .042″ dia., .285″ long pins, which fit .042″ dia. holes. Patented.

Vector No.	No. of Holes	No. of Mtg. Pins	Mtg. Pin Spacing	Qty. per Pkg.	Net per Pkg.
WITH MOUNTING PINS					
T45-24/2	24	3	.800″	2	**$2.99**
T45-48	48	6	.800″	2	**6.17**

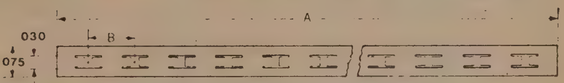
PUNCHED BUS STRIPS WITH ROUND HOLES



Install on circuit boards as alternative to etched bus lines. Holes accept various terminals made by Vector and some models accept IC socket tails.

Vector No.	Dimensions				Material Thickness	Net per 100
	A	B	C	D		
T107/C	.047″	.100″	14″	080″	.017″	**$43.73**

PUNCHED TYPE WITH SQUARE HOLES



T112 Series—Use short versions as grounding clips between .025″ square posts and PC board circuitry. Install by hand and use P133A tool to push down and wrap post. Resilient fingers hold part on post until soldered. Use long versions for busing groups of .025″ square posts.

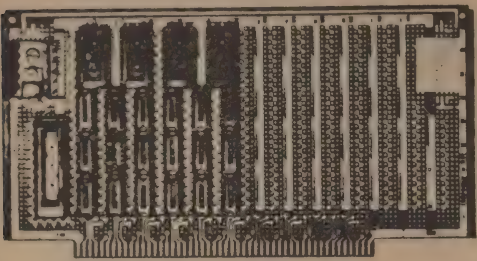
Vector No.	Dimensions		No. of Holes	Qty. per pkg.	Net per Pkg.
	A	B			
T112-1/C	0.2″	....	1	100	**$2.10**
T112-2/M	0.3″	....	1	1000	....
T112-3/C	12.0″	0.2″	60	100	....
T112-4/C	12.0″	0.3″	40	100	....

Material: Beryllium copper, .007″ thick with tin plating.

QUANTITY PRICES AVAILABLE ON REQUEST

Vector Microcomputer Support Products

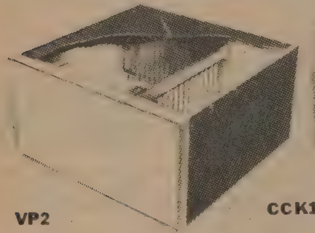
PLUGBORDS FOR S100 SYSTEMS



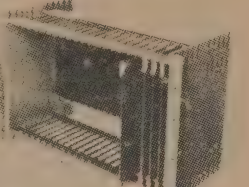
Mount DIP devices anywhere on Plugbords in pre-punched 0.042″ dia. holes. Have 100 contacts (50 each side on 0.125″ centers). Heavy tinned buses back-to-back provide good distributed capacitance. Fit all S100 and IEEE 696 systems. 10″ wide x 5.313″ high. Furnished with one heat sink, two regulator positions, one pre-wired. Install wrap post sockets and wire.
Vector No. 8800V—With buses. Net Each.............**$24.50**
Vector No. 8801-1—With edge contacts, no buses.
Net Each.....................................**$17.08**

Vector No. 8800R2—Coated both sides with copper and positive photoresist. Gold plated contacts continuous into copper fields on both sides. Make your own custom S100 board. Complete step-by-step instructions. Net Each......................**$26.15**
Vector No. 8804—Board for all DIPs with 0.3″, 0.4″, 0.6″ and 0.9″ lead spacing. Net Each......................**$26.89**
Vector No. 8801—Pad-per-hole board. Mounts wrap or solder tail components everywhere on board. Net Each..........**$25.20**

ENCLOSURES FOR S100 SYSTEMS



VP2

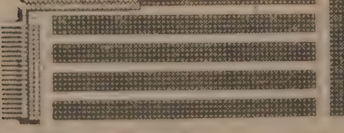


CCK100

Assembled enclosure with interior mounting system for cards, connectors and power supply. Blue vinyl finish. Slide-off top and bottom side panels. Easily removed front and rear clear anodized panels. Supplied with 12 pairs of adjustable plastic card guides, positioned to accept top-down inserted S100 standard cards (5.3″ x 10″), chassis mounting plate, adjustable connector mounting brackets and rear input/output connector panel for 10 ITT Cannon D25S connectors. Symmetrical mounting holes allows connector cutouts either end. Two models listed; other sizes and models available for modules or rack mounting, and with slope fronts, in 11 different colors.
Vector No. VP1—17.58″ w. x 17.1″ d. x 9.01″ h., with slots running perpendicular to front panel. Net Each.............**$177.84**
Vector No. VP2—Same as above, but with card slots running parallel to front panel. Net Each..................**$173.63**
Vector No. 8803—S100 mother board with 11 positions, ready for connectors with solder masked etched circuitry. Net Ea. **$34.41**

Rack mountable cage is especially designed to accommodate S100 size plugboards. Cage measures 19″ wide x 12.2″ high x 8.9″ deep. Cage has .081″ thick anodized aluminum side walls with flanges with mounting holes in accordance with EIA standard, handle holes, and extruded aluminum cross members with holes for snap-in nylon guides (furnished). Rear pair of mounting struts adjust four ways and accommodate mounting of a mother board or connectors without hole drilling or special hardware. Will accommodate plugboards 5.313″ to 6.5″ long and 10″ to 11.5″ wide. Cage assemblies quickly. and furnished guides can be positioned on multiples of 0.25″.
Vector No. CCK100 Rack Mounting Cage—With added receptacles and plugboards. Net Each......................**$56.45**

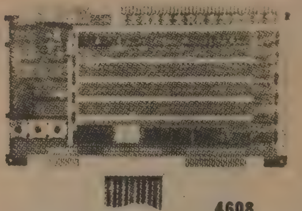
FOR APPLE AND SUPERKIM SYSTEMS



4605

Vector No. 4609—Compatible with Apple II™, Pet Commodore™ with Expandamem™, Super-Kim™. Extra I/O edge connector. Gold plated contacts. Extended 7.7″ for 1.9 sq. in. extra area without interference. .042″ dia. holes on 0.1″ grid.
Net Each.....................................**$25.07**

FOR MULTIBUS SYSTEMS



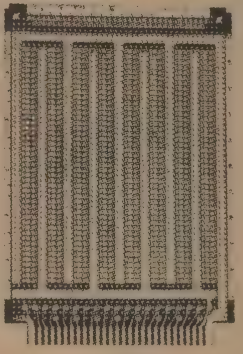
4608

Vector No. 4608—Compatible with Intel SBC80 and National BLC80 series. Mounts 54 16-pin DIP's and any size DIP wherever required in .042″ holes on 0.1″ x 0.1″ grid. Dual bus pattern under DIP's permits easy power and ground connections. Has 43/86 contacts on .156″ centers and 30/60 nickel plated gold flashed contacts on .100″ centers along bottom edge plus 3 sets of I/O connector fingers at top. Overall size, 6.75″ long x 12″ wide.
Net Each.....................................**$64.56**
Vector No. 4608-1—Same as 4608, except without bus pattern.
Net Each.....................................**$43.62**
Vector No. CCK80—Rack mountable cage for Plugbords above and 4611 Plugbords listed below. Measures 8.75″ h. x 12″ d. x 19″ w. Assembled with 10 pairs of adjustable guides. Net Ea..**$89.55**

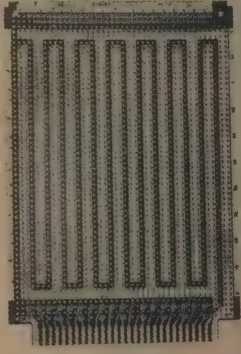
FOR MOTOROLA EXORCISER™ SYSTEMS

Bus terminations per Motorola standard. 43/86 contacts on 0.156″ centers. 0.042″ diameter holes on 0.1″ grid. Measure 6″ x 9.75″.
Vector No. 4611—With buses and pads for soldering or wire wrapping. Net Each...........................**$32.65**
Vector No. 4611-1—With edge contacts, but no buses.
Net Each.....................................**$21.75**
Vector No. 4611-2—For wire wrapping. Net Each.....**$32.65**

FOR STD BUS SYSTEMS



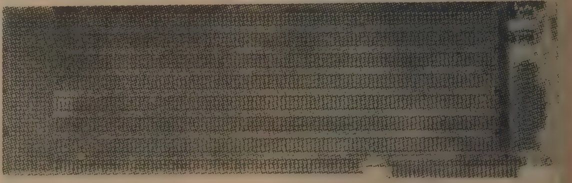
4610



4610-2

Vector No. 4610—Compatible with STD BUS Pro-Log Microcomputer and general use. 4.5″ x 6.5″ x .062″. 28/56 gold plated contacts on 0.125″ center. .042″ dia. holes on 0.1″ grid.
Net Each.....................................**$20.66**
Vector No. 4610-1—With edge contacts; no busses.
Net Each.....................................**$17.39**
Vector No. 4610-2—Wire wrapping board. Ground bus terminated per STD BUS convention. Net Each.................**$20.66**

FOR IBM PERSONAL COMPUTER SYSTEM



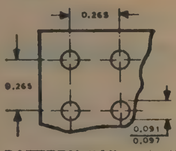
Features: Drilled, plated-thru holes, FR4 epoxy glass, gold-plated contacts, tinned buses and pads. Component area pads and buses optimized for flexibility and density. I/O pad area layout accomodates most standard connectors. Brackets and complete instructions included. Three models to choose from. **Size:** 4.2″ w. x 13.3″ l. x 1⁄16″ thick.
Vector No. 4613—3-hole pads and buses for soldering.
Net Each.....................................**$39.00**
Vector No. 4613-1—Bare except for contacts and peripheral buses.
Net Each.....................................**$26.95**
Vector No. 4613-2—Wire wrap model. Net Each......**$36.95**

FOR TI980 SYSTEMS

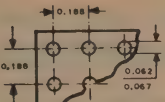
Vector No. 4350—Compatible with TI980 computer. Epoxy glass composite 9.6″ long x 7″ w. x 1⁄16″ thick. Has 80 (40 each side) nickel gold contacts on 0.125″ centers. Heavy back-to-back tinned copper buses. .042″ dia. holes on 0.1″ grid. Net Ea.....**$26.09**

Apple II is a trademark of Apple Computer, Inc.; Pet Commodore is a trademark of Commodore Business Machines; Superkim is a trademark of Microproducts; Expandamem is a trademark of Compu/Think; Exorciser is a Motorola trademark.

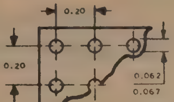
Vector Boards, Terminals and Tools



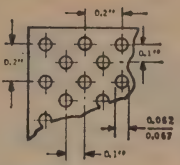
PATTERN "A"



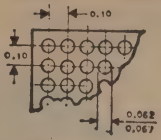
PATTERN "B"



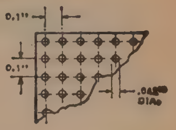
PATTERN "F"



PATTERN "G"



PATTERN "H"



PATTERN "P"

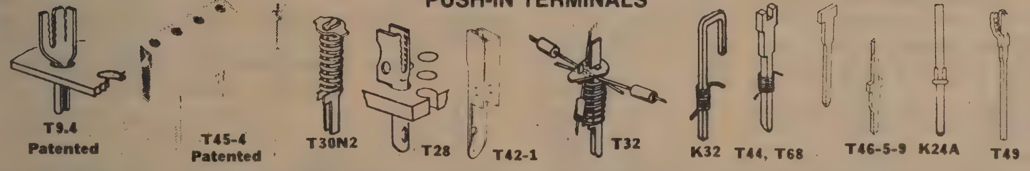
Vectorbord and Micro-Vectorbord are made from flame-retardant materials and precision punched in a variety of materials and hole patterns. Materials used are phenolic; type PBE-P per L-P-513, NEMA grade FR 2, copper clad phenolic in 1 oz. NEMA FR 2; paper epoxy per MIL-P-22324 type PEE NEMA grade FR 3; copper clad epoxy paper type FL-PX per MIL-P-13949 NEMA grade FR 3; epoxy glass MIL-P-18177 type GEE NEMA FR 4 and G-10; copper clad epoxy glass MIL 13949 type FL-GF NEMA FR 4 and G-10. Glass composite is FR 4 grade. Boards accept push-in and wire wrappable terminals as shown, and many component leads without hole drilling.

Vector No.	Hole Pattern	Size, Inches	Net Ea., Lots of		
		W × L × Th.	1-19	20-99	100-199
GLASS COMPOSITE					
42G24WE	G	4.80 × 8.51 × 1/16	$ 2.71	$ 2.44	$2.17
59P44-032	P	4.50 × 6.00 × 1/32	2.02	1.82	1.62
64A18WE	A	4.80 × 16.99 × 1/16	5.84	5.26	4.67
64P44	P	4.50 × 6.50 × 1/16	1.99	1.79	1.59
84P44	P	4.50 × 8.50 × 1/16	2.45	2.21	1.96
85G24WE	G	4.80 × 16.99 × 1/16	6.00	5.40	4.80
169P44	P	4.50 × 17.00 × 1/16	5.61	5.05	4.49
169P59-047	P	6.00 × 17.00 × 1/16	7.76	6.98	6.21
169P79	P	8.00 × 17.00 × 1/16	8.48	7.63	6.78
169P84	P	8.50 × 17.00 × 1/16	9.90	8.91	7.92
169P84C1*	P	8.51 × 17.00 × 1/16	12.14	10.93	9.71
EPOXY PAPER					
64P44EP	P	4.50 × 6.50 × 1/16	$2.34	$2.11	$1.87
84P44EP	P	4.50 × 8.50 × 1/16	2.92	2.63	2.34
85F24EP	F	4.80 × 16.99 × 1/16	4.08	3.67	3.26
85G24EP	G	4.80 × 16.99 × 1/16	3.46	3.11	2.77
85G42EP	G	8.51 × 16.99 × 1/16	5.98	5.38	4.78
169P44EP	P	4.50 × 17.00 × 1/16	5.31	4.78	4.25
169P47EP	P	4.80 × 17.00 × 1/16	5.53	4.98	4.42
169P84EP	P	8.50 × 17.00 × 1/16	9.50	8.55	7.60

Vector No.	Hole Pattern	Size, Inches	Net Ea., Lots of		
		W × L × Th.	1-19	20-99	100-199
PHENOLIC					
32AA18	A	4.80 × 8.51 × 3/32	$2.09	$1.88	$1.67
45B30	B	5.69 × 16.97 × 1/16	1.89	1.70	1.51
64A18	A	4.80 × 16.99 × 1/16	2.17	1.95	1.74
64AA18	A	4.80 × 16.99 × 3/32	2.79	2.51	2.23
64AA32	A	4.80 × 16.99 × 3/32	4.76	4.28	3.81
64P44XXXP	P	4.50 × 6.50 × 1/16	1.70	1.53	1.36
90B30	B	5.69 × 16.97 × 1/16	4.13	3.72	3.30
EPOXY GLASS					
64P44WE	P	4.50 × 6.50 × 1/16	$ 2.42	$ 2.18	$ 1.94
84P44WE	P	4.50 × 8.50 × 1/16	2.99	2.69	2.39
85H48WE	H	4.80 × 8.50 × 1/16	2.92	2.63	2.34
169P44WE	P	4.50 × 17.00 × 1/16	5.89	5.30	4.71
169P44WEC1*	P	4.50 × 17.00 × 1/16	7.95	7.16	6.36
169P84WE	P	8.51 × 17.00 × 1/16	11.42	10.28	9.14
169P84WEC1*	P	8.50 × 17.00 × 1/16	13.99	12.59	11.19
170H48WE	H	4.80 × 17.00 × 1/16	6.45	5.81	5.16

*Copper clad one side.

PUSH-IN TERMINALS



Zip push-in terminals are fast and easy to use because they fit prepunched holes in Vectorbord®, Micro-Vectorbord® and Plugbords. Simple, listed hand tools firmly seat terminals to hold without staking. Slots or fingers in some models hold leads until soldered. Wire wrappable types have sharp-cornered, 0.025" square tails for reliable wire wrapping. Klip-Strip T45-4 accepts DIP leads or #22 gauge wire for solderless interconnections. T30 and T32 types hold up to 6 leads in solderless spring connection and are ideal for experimental terminals.

Fits Hole Size	Description	Material/ Plating	Overall Length Inches	Installing Tools		Package of 100		Package of 1000	
				Manual	P158 Die Point	Vector No.	Net Per Pkg.	Vector No.	Net Per Pkg.
SOLDERABLE TYPES									
.093"	Push-in	Brass/Tin	9/16	P122B	....	T9.4/C	$ 2.09	T9.4/M	$15.47
.062"	Push-in	Copper alloy/Tin	.437	P91A	....	T28/C	1.91	T28/M	11.84
.042"	Push-in	Copper alloy/Tin	.360	P149A	....	T42-1/C	1.91	T42-1/M	12.30
.042"	Round pin	Phr. Brz./Gold	.375	....	D7-2	K24A/50†	3.52†	K24A/M	48.29
.042"	Round pin	Phr. Brz./Tin	.375	....	D7-2	K24C/50†	2.38†	K24C/M	25.96
WRAP-POST TYPES									
.042"	.025" Sq.	Copper alloy/Tin	.690	A13	D11	T44/C	$ 2.55	T44/M	$ 15.64
.042"	.025" Sq.	Phr. Brz./Tin	.690	....	....	K32/C	3.31	K32/M	21.99
.042"	.025" Sq.	Phr. Brz./Tin	.625	P156	D8	T49/C	3.59	T49/M	29.32
.042"	.025" Sq.	Phr. Brz./Gold	.625	P156	D8	T49A/C	7.32	T46A/M	64.41
.042"	.025" Sq.	Phr. Brz./Tin	.460	....	....	T46-4-9/C	3.02	T46-4-9/M	19.36
.042"	.025" Sq.	Copper alloy/Tin	.800	A13-1	....	T68A/C	2.91	T68A/M	17.49
.042"	.025" Sq.	Phr. Brz./Tin	.880	P133B	....	T46-5-9/C	3.18	T46-5-9/M	23.59
.042"	.025" Sq.	Phr. Brz./Gold	.745	....	D9	R32/C	23.08	R32/M	215.54
SOLDERLESS TYPES									
.093"	Spring	Brass/Nickel	.906	P92A	....	T30N2/C	$24.21	T30N2/M	$200.93
.093"	Spring	Brass/Nickel	1.250	P136	....	T32A/C	31.57	T32A/M	251.24
.042"	Klip-Strip	Phr. Brz./Tin	.555	P154-1	....	T45-4/16●	9.60●	T45-4/C■	52.94■

†Pkg. of 50. ●Pkg. of 16. ■Pkg. of 100.

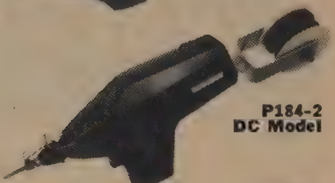
Vector Wire Wrapping Tools and PC Kits

SLIT-N-WRAP® WIRING TOOLS FOR 0.025″ SQUARE POSTS

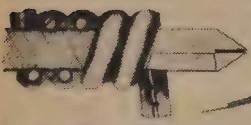
28 gage wire

P184-7 Turns Counter Model

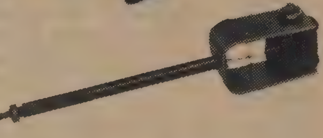
- **No Stripping**
- **No Precutting**
- **No Premeasuring**
- **No Loading**
- **Daisy Chain Wraps**
- **Quick Change Bits**
- **Relaible Wraps Meet MIL-STD 1130B, paragraph 5.6**
- **US & Foreign Patents**



P184-2 DC Model



Shows cross section on diagonal on left end and unwrapped wire on right.



P184-1 Manual Model

The Vector method uses polyurethane/nylon coated wire (P180) or Tefzel coated wire (P184) fed from a spool mounted on the tool. The tool slits the insulation during wrapping, but not between wraps. Four times faster than other manual wrapping techiques, eliminates cutting, measuring, stripping and permits daisy-chain wrapping. Shorter length wrap posts may be used. Produces reliable, gas-tight, low-resistance connections per MIL-STD-113A paragraph 5.6.

Models with wire gripper eliminate need to hand hold wire at start. All models supplied with wire tension regulator to reduce wire breakage. Models with turns counter are available.

Vector No. P180-1 Manual Wire Wrap Tool—With wire tension regulator. Supplied with two 100′ spools of wire. Net Each. **$34.00**

Vector No. P180-5 Manual Wire Wrap Tool—With wire tension regulator and wire gripper. Supplied with two 100′ spools of wire. Net Each. **$35.50**

Vector No. P180-2 Battery Powered Wrap Tool—With wire tension regulator and wire gripper. Supplied with nickel cadmium batteries, recharger, and two 100′ spools of wire. Net Each. **$115.81**

Vector No. P180-3 AC Powered Wrap Tool—With wire tension regulator and gripper. Supplied transformer and two 100′ spools of wire. Net Each. **$115.81**

Vector No. P180-7 AC Powered Wrap Tool—With wire tension regulator, wire gripper, and turns counter. Supplied with two 100′ spools of wire. Net Each. **$175.00**

Vector No. 01—Replacement wrap bits for polyurethane wire. Net per package of 2. . . . . **$24.38**

Vector No. W28-2 Replacement Wire Spools—Package of three 100′ spools. Add suffix specifying color: **A,** green; **B,** red; **C,** clear; **D,** blue. Net per package of 3. . . . . **$3.85**

Vector No. P184-1 Manual Wrap Tool—With wire tension regulator. Supplied with two 50′ spools of wire. Net Ea. **$34.00**

Vector No. P184-5 Manual Wrap Tool—With wire tension regulator and wire gripper. Supplied with two 50′ spools of wire. Net Each. **$35.50**

Vector No. P184-2 Battery Powered Wrap Tool—With wire tension regulator and wire gripper. Supplied with nickel cadmium batteries, recharger, and 300′ spool of wire. Net Ea. . . **$115.81**

Vector No. P184-3 AC Powered Wrap Tool—With wire tension regulator and wire gripper. Supplied with AC transformer and 300′ spool of wire. Net Each. **$115.81**

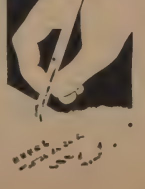
Vector No. P184-7 AC Powered Wrap Tool—With wire tension regulator, wire gripper, and electronic turns counter. Supplied with 300′ spool of wire. Net Each. **$175.00**

Vector No. W28-6 Replacement Wire Spools—Package of two 50′ spools. Add suffix specifying color: **A,** green; **B,** red; **D,** blue; **E,** white; **F,** yellow; **H,** black. Net per package of 2. . . . . . **$5.67**

Vector No. W28-6*S Replacement Wire Spools—One 300′ spool. Replace * in Part No. with color suffix as above. Net Ea. . **$15.73**

WIRING PENCIL

New P178-1 wiring pencil wires circuits three times faster than conventional soldering or manual wrapped wire connections. Tool is used to guide and wrap heat-strippable insulated wire, fed off a self-contained, replaceable bobbin, onto component leads or terminals. Connections are made by soldering. When heat is applied to junction points with soldering iron, the wire insulation melts, permitting the applied solder to bond the junction.

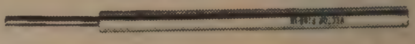


Vector No. P178-1 Wiring Pencil—Complete with 250-ft. spool each of red and green wire, threading loop and instructions. Net Each. **$9.95**

Replaceable Wire—No. 36 wire with solder-thru insulation. Specify **No. W36-8A** for green; **W36-8B** for red. Package of two spools. Net per pkg. **$4.13**

WRAP-N-STRAP WIRE WRAPPING TOOLS

Manual Wrapper P160-2B

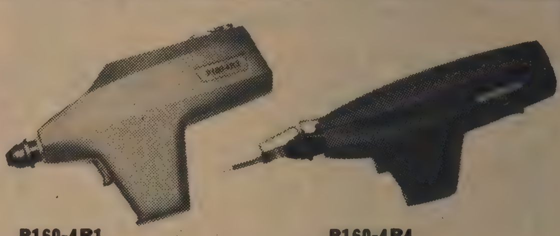


Manual Unwrapper P160-1B

Vector tools for wrapping 0.025″ square posts provide high quality at minimum price. Wraps and unwraps either right or left hand wraps.

Vector No. P160-2B Manual Wrapping Tool—Wraps #26-30 AWG wire on 0.025″ square posts. Net Each. . . . . **$ 9.27**

Vector No. P160-1B Manual Unwrapping Tool—Unwraps #26-30 AWG wire from 0.025″ square posts. Net Each. **$13.63**



P160-4R1
P160-4R3

P160-4R4
110 VAC

Electric motor powered driver tools for both standard and modified wrap joints per MIL-Std.-1130. Have wire grip feature to eliminate hand held wire at start.

Vector No. P160-4R4—110 VAC powered tool. Net Ea. **$88.29**

Vector No. P160-4R5—DC model with nickel cadmium battery. Recharger included. Net Each. **$88.29**

Driver Tools Only—Order Vector Wrap-N-Strap or Manual Slit-N-Wrap tools for installation in tools.

Vector No. P160-4R3 Driver Unit—For all Vector manual wire-wrapping tools. Portable field unit powered by self-contained, rechargeable Ni-Cad batteries. Includes recharger. Net Each. **$82.84**

Vector No. P160-4R1—Same as above, but powered by 110 VAC. Net Each. **$82.84**

32XA1 +POSITIVE PHOTOSENSITIZED ETCHED CIRCUIT KIT

Vector kits produce sharply detailed circuits with a minimum delay in the laboratory, shop or school. Kits are built around 1 oz. copper-clad laminate. U.V. light sensitive, resist-coated, copper-clad boards are included in kits, together with positive rub/transfer art work patterns for DIP's, transistors, lines, dots, block areas, connector patterns, etchant, developer, etching tray and Mylar. Make circuits on Mylar for single or multiple reproduction; directly on uncoated copper for one-of-a-kind.

ORDERING INFORMATION

Vector No. 32X1 Etched Circuit Kit—Contains 1 bare and 1 sensitized 4½″ x 6″, 1 oz., clad-one-side, 1/16″ thick, phenolic board; etching tray; ferric chloride etchant; developer; glass exposure plate; mask cutting film; tape; brush; razor knife; 4 sheets of rub/transfer art work; layout paper and instruction sheets. Net Each. **$21.11**

Vector No. 32XA1 Etched Circuit Kit—Contains larger assortment of materials described above plus total of seven 1 oz. copper-clad phenolic boards: 3 boards sensitized one side, 4½″ x 6½″, 8″ x 5.1″, 4.5″ x 2.73″; 2 boards sensitized two sides, 4½″ x 6½″, 4.5″ x 2.73″; 2 bare boards, 4½″ x 6½″, 4.5″ x 2.7″. Net Ea. **$50.59**

Vector No. 0088-21-15—1¼ oz. bottle of positive acting developer. Net Each. **$1.85**

Vector No. 0088-21-45—6 oz. bottle of positive acting developer. Net Each. **$2.80**

Vector No. R407—Rub transfer art work set; 4 sheets. Includes lines, donuts and IC and transistor pads. Net per set. **$3.97**

Vector No. CU65R45-1—Positive photoresist coated, phenolic boards. 6½″ x 4½″ x 1/16″. Net per pkg. of 5. . . . . **$15.35**

waldom Spacers

SPACERS

UNTHREADED HEXAGONAL

Length (Inches)	Waldom Number Clearance Hole #4 (.115″)	#6 (.140″)	#8 (.171″)	Net per 100
¼″ BRASS				
.125	60136	60151	60166	$ 6.25
.1875	60137	60152	60167	6.65
.250	60138	60153	60168	7.30
.3125	60139	60154	60169	8.70
.375	60140	60155	60170	9.00
.4375	60141	60156	60171	9.25
.500	60142	60157	60172	9.60
.5625	60143	60158	60173	10.55
.625	60144	60159	60174	11.15
.6875	60145	60160	60175	13.95
.750	60146	60161	60176	14.20
.8125	60147	60162	60177	15.40
.875	60148	60163	60178	17.15
.9375	60149	60164	60179	18.60
1.000	60150	60165	60180	19.60
¼″ ALUMINUM				
.125	60536	60548	60560	$ 6.90
.250	60537	60549	60561	8.20
.375	60538	60550	60562	9.20
.500	60539	60551	60563	10.45
.625	60540	60552	60564	11.50
.750	60541	60553	60565	12.75
.875	60542	60554	60566	13.80
1.000	60543	60555	60567	15.05
1.250	60544	60556	60568	40.80
1.500	60545	60557	60569	41.85
1.750	60546	60558	60570	46.45
2.000	60547	60559	60571	54.10
⅜″ BRASS				
.125	60226	60241	60256	$10.40
.1875	60227	60242	60257	11.65
.250	60228	60243	60258	12.55
.3125	60229	60244	60259	14.50
.375	60230	60245	60260	15.90
.4375	60231	60246	60261	19.45
.500	60232	60247	60262	20.10
.5625	60233	60248	60263	21.10
.625	60234	60249	60264	23.30
.6875	60235	60250	60265	25.25
.750	60236	60251	60266	24.70
.8125	60237	60252	60267	26.00
.875	60238	60253	60268	28.95
.9375	60239	60254	60269	29.35
1.000	60240	60255	60270	32.05

UNTHREADED ROUND

Length (Inches)	Waldom Number Clearance Hole #4 (.115″)	#6 (.140″)	#8 (.171″)	Net per 100
¼″ BRASS				
.125	60001	60016	60031	$ 5.60
.1875	60002	60017	60032	6.05
.250	60003	60018	60033	6.80
.3125	60004	60019	60034	7.70
.375	60005	60020	60035	8.20
.4375	60006	60021	60036	9.00
.500	60007	60022	60037	9.20
.5625	60008	60023	60038	10.50
.625	60009	60024	60039	11.00
.6875	60010	60025	60040	13.70
.750	60011	60026	60041	14.20
.8125	60012	60027	60042	14.70
.875	60013	60028	60043	16.00
.9375	60014	60029	60044	16.50
1.000	60015	60030	60045	18.30
¼″ ALUMINUM				
.125	60400	60418	60436	$ 5.75
.250	60401	60419	60437	6.90
.375	60402	60420	60438	8.05
.500	60403	60421	60439	9.20
.625	60404	60422	60440	10.35
.750	60405	60423	60441	11.50
.875	60406	60424	60442	12.65
1.000	60407	60425	60443	13.80
1.250	60408	60426	60444	14.95
1.500	60409	60427	60445	27.55
1.750	60410	60428	60446	28.70
2.000	60411	60429	60447	29.85
2.500	60412	60430	60448	43.55
3.000	60413	60431	60449	44.90
3.500	60414	60432	60450	52.25
4.000	60415	60433	60451	55.70
5.000	60416	60434	60452	77.65
6.000	60417	60435	60453	98.50
¼″ FIBRE				
.125	60271	60286	60301	$ 5.30
.1875	60272	60287	60302	6.05
.250	60273	60288	60303	7.10
.3125	60274	60289	60304	9.45
.375	60275	60290	60305	10.60
.4375	60276	60291	60306	11.50
.500	60277	60292	60307	11.20
.5625	60278	60293	60308	11.50
.625	60279	60294	60309	12.10
.6875	60280	60295	60310	13.55
¼″ FIBRE (cont)				
.750	60281	60296	60311	$14.45
.8125	60282	60297	60312	15.90
.875	60283	60298	60313	16.50
.9375	60284	60299	60314	17.70
1.000	60285	60300	60315	18.30
⅜″ BRASS				
.125	60091	60106	60121	$10.00
.1875	60092	60107	60122	11.65
.250	60093	60108	60123	12.20
.3125	60094	60109	60124	13.10
.375	60095	60110	60125	15.60
.4375	60096	60111	60126	16.55
.500	60097	60112	60127	16.95
.5625	60098	60113	60128	21.40
.625	60099	60114	60129	20.35
.6875	60100	60115	60130	22.90
.750	60101	60116	60131	20.25
.8125	60102	60117	60132	23.70
.875	60103	60118	60133	26.90
.9375	60104	60119	60134	27.70
1.000	60105	60120	60135	28.80

THREADED HEXAGONAL

Length (Inches)	Waldom Number Internal Thread #4-40	#6-32	#8-32	Net per 100
¼″ BRASS				
.125	60181	60196	60211	$ 7.30
.1875	60182	60197	60212	7.80
.250	60183	60198	60213	8.55
.3125	60184	60199	60214	9.20
.375	60185	60200	60215	10.40
.4375	60186	60201	60216	11.15
.500	60187	60202	60217	12.15
.5625	60188	60203	60218	14.20
.625	60189	60204	60219	16.95
.6875	60190	60205	60220	17.95
.750	60191	60206	60221	18.95
.8125	60192	60207	60222	19.60
.875	60193	60208	60223	19.95
.9375	60194	60209	60224	20.90
1.000	60195	60210	60225	22.40
¼″ ALUMINUM				
.125	60584	60600	60616	$ 8.20
.250	60585	60601	60617	9.20
.375	60586	60602	60618	10.45
.500	60587	60603	60619	11.50
.625	60588	60604	60620	12.75
.750	60589	60605	60621	13.80
.875	60590	60606	60622	15.05
1.000	60591	60607	60623	16.10
1.250	60592	60608	60624	33.15
1.500	60593	60609	60625	34.20
1.750	60594	60610	60626	35.70
2.000	60595	60611	60627	37.00
2.500	60596	60612	60628	39.80
3.000	60597	60613	60629	41.85
3.500	60598	60614	60630	49.50
4.000	60599	60615	60631	56.10

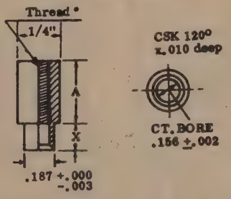
THREADED ROUND

Length (Inches)	Waldom Number Internal Thread #4-40	#6-32	#8-32	Net per 100
¼″ BRASS				
.125	60046	60061	60076	$ 7.25
.1875	60047	60062	60077	7.55
.250	60048	60063	60078	7.80
.3125	60049	60064	60079	8.30
.375	60050	60065	60080	9.25
.4375	60051	60066	60081	9.90
.500	60052	60067	60082	12.15
.5625	60053	60068	60083	12.95
.625	60054	60069	60084	13.45
.6875	60055	60070	60085	17.45
.750	60056	60071	60086	17.65
.8125	60057	60072	60087	17.80
.875	60058	60073	60088	18.80
.9375	60059	60074	60089	19.10
1.000	60060	60075	60090	20.60
¼″ ALUMINUM				
.125	60472	60488	60504	$ 6.90
.250	60473	60489	60505	8.20
.375	60474	60490	60506	9.20
.500	60475	60491	60507	10.45
.625	60476	60492	60508	11.50
.750	60477	60493	60509	12.75
.875	60478	60494	60510	13.80
1.000	60479	60495	60511	16.10
1.250	60480	60496	60512	18.40
1.500	60481	60497	60513	20.65
1.750	60482	60498	60514	22.95
2.000	60483	60499	60515	25.25
2.500	60484	60500	60516	39.05
3.000	60485	60501	60517	41.05
3.500	60486	60502	60518	44.15
4.000	60487	60503	60519	54.35

5/16″ ALUMINUM SPACERS FOR #10-32 SCREWS

Length (In.)	Round Waldom No.	Round Net/100	Hexagonal Waldom No.	Hexagonal Net/100
.200″ CLEARANCE I.D.				
.125	60454	$ 8.20	60572	$10.45
.250	60455	9.20	60573	11.50
.375	60456	10.45	60574	12.75
.500	60457	11.50	60575	13.80
.625	60458	12.75	60576	15.05
.750	60459	13.80	60577	16.10
.875	60460	15.05	60578	18.40
1.000	60461	16.10	60579	18.40
1.250	60462	18.40	60580	40.80
1.500	60463	31.15	60581	41.85
1.750	60464	32.15	60582	46.45
2.000	60465	33.40	60583	54.10
2.500	60466	48.45	....	.....
3.000	60467	54.35	....	.....
3.500	60468	69.40	....	.....
4.000	60469	79.85	....	.....
5.000	60470	91.80	....	.....
6.000	60471	111.45	....	.....
THREADED #10-32				
.125	60520	$ 9.20	60632	$11.50
.250	60521	10.45	60633	12.75
.375	60522	11.50	60634	13.80
.500	60523	12.75	60635	15.05
.625	60524	13.80	60636	16.10
.750	60525	15.05	60637	17.35
.875	60526	16.10	60638	18.40
1.000	60527	17.35	60639	19.65
1.250	60528	18.40	60640	38.50
1.500	60529	20.65	60641	39.05
1.750	60530	22.95	60642	40.05
2.000	60531	25.25	60643	41.85
2.500	60532	39.05	60644	55.10
3.000	60533	41.05	60645	57.40
3.500	60534	44.15	60646	58.90
4.000	60535	54.35	60647	69.65

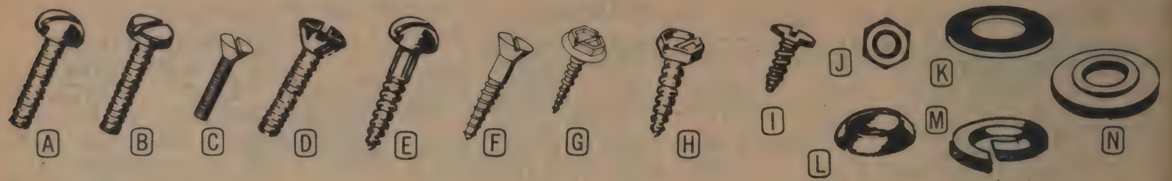
THREADED SWAGE-TYPE STANDOFFS



Length (In.) Standoff "A"	Stud "X"	Waldom Numbers #4-40	#6-32	#8-32	Net per 100
ROUND					
¼	.105	60648	60666	60684	$12.00
¼	.135	60649	60667	60685	12.00
¼	.165	60650	60668	60686	12.00
⅜	.105	60651	60669	60687	13.80
⅜	.135	60652	60670	60688	13.80
⅜	.165	60653	60671	60689	13.80
½	.105	60654	60672	60690	16.85
½	.135	60655	60673	60691	16.85
½	.175	60656	60674	60692	16.85
⅝	.105	60657	60675	60693	17.60
⅝	.135	60658	60676	60694	17.60
⅝	.165	60659	60677	60695	17.60
¾	.105	60660	60678	60696	19.65
¾	.135	60661	60679	60697	19.65
¾	.165	60662	60680	60698	19.65
1	.105	60663	60681	60699	25.25
1	.135	60664	60682	60700	25.25
1	.165	60665	60683	60701	25.25
HEXAGONAL					
¼	.105	60702	60720	60738	$12.75
¼	.135	60703	60721	60739	12.75
¼	.165	60704	60722	60740	12.75
⅜	.105	60705	60723	60741	14.55
⅜	.135	60706	60724	60742	14.55
⅜	.165	60707	60725	60743	14.55
½	.105	60708	60726	60744	17.60
½	.135	60709	60727	60745	17.60
½	.175	60710	60728	60746	17.60
⅝	.105	60711	60729	60747	18.40
⅝	.135	60712	60730	60748	18.40
⅝	.165	60713	60731	60749	18.40
¾	.105	60714	60732	60750	20.40
¾	.135	60715	60733	60751	20.40
¾	.165	60716	60734	60752	20.40
1	.105	60717	60735	60753	26.05
1	.135	60718	60736	60754	26.05
1	.165	60719	60737	60755	26.05

SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST

waldom Hardware and Fastening Devices



Note: Steel and brass hardware is nickel-plated unless otherwise noted. **Specify suffix C for pkg. of 100 (i.e., F-579-C); suffix M for bag of 1000 (i.e., F-579-M).**

ROUND HEAD MACHINE SCREWS (FIG. A)

STEEL TYPE

Waldom No.	Size Thd. x Lght. (Inches)	Pkg. of 100	Per 1000	
			1000-4999	5000-Up
F-579	2-56 x ⅛	$2.40	$19.15	$16.70
F-461	2-56 x ¼	2.10	16.70	14.60
F-462	2-56 x ½	2.20	17.40	15.20
F-463	2-56 x ¾	2.30	18.30	15.95
F-464	3-48 x ¾	2.60	20.55	17.90
F-465	4-36 x ¼	2.90	23.00	20.00
F-466	4-36 x ⅜	2.70	21.25	18.50
F-467	4-36 x ½	2.90	23.00	20.00
F-580	4-36 x ⅝	3.30	26.15	22.70
F-468	4-36 x ¾	3.15	24.75	21.50
F-469	4-40 x ¼	2.15	17.05	14.90
F-581	4-40 x ⅜	2.50	19.85	17.30
F-470	4-40 x ½	2.25	17.75	15.50
F-582	4-40 x ⅝	2.70	21.25	18.50
F-471	4-40 x ¾	2.45	19.50	17.00
F-472	6-32 x ¼	2.30	18.10	15.80
F-583	6-32 x ⅜	2.80	21.95	19.10
F-473	6-32 x ½	2.40	19.15	16.70
F-584	6-32 x ⅝	2.60	20.55	17.90
F-475	6-32 x 1	3.20	25.10	21.80
F-476	6-32 x 1¼	3.75	29.65	25.70
F-477	6-32 x 2	4.00	31.40	27.20
F-478	8-32 x ¼	2.40	19.15	16.70
F-479	8-32 x ⅜	2.30	18.10	15.80
F-480	8-32 x ½	2.60	20.55	17.90
F-585	8-32 x ⅝	2.85	22.30	19.40
F-481	8-32 x ¾	2.85	22.30	19.40
F-482	8-32 x 1	3.20	25.10	21.80
F-483	8-32 x 1¼	3.30	25.80	22.40
F-484	10-32 x ½	2.75	21.60	18.80
F-586	10-32 x ⅝	3.60	28.25	24.50
F-485	10-32 x ¾	3.20	25.10	21.80
F-486	10-32 x 1	3.60	28.25	24.50
F-487	10-32 x 1½	4.20	33.15	28.70

BINDER HEAD STEEL MACHINE SCREWS (FIG. B)

F-591	2-56 x ⅛	$2.60	$20.55	$17.90
F-592	2-56 x ¼	2.85	22.65	19.70
F-593	2-56 x ½	2.90	23.00	20.00
F-594	2-56 x ⅝	3.20	25.10	21.80
F-020	4-40 x ¼	2.25	17.75	15.50
F-021	4-40 x ½	2.45	19.50	17.00
F-022	4-40 x ¾	2.70	21.25	18.50
F-502	6-32 x 3/16	2.45	19.50	17.00
F-503	6-32 x ¼	2.40	19.15	16.70
F-504	6-32 x ⅜	2.55	20.20	17.60
F-014	6-32 x ½	2.05	16.35	14.30
F-621	6-32 x ⅝	2.55	20.20	17.60
F-015	6-32 x ¾	2.40	18.80	16.40
F-023	8-32 x ¼	2.50	19.70	17.15
F-505	8-32 x 5/16	2.50	19.85	17.30
F-024	8-32 x ⅜	2.85	22.65	19.70
F-025	8-32 x ½	2.90	23.00	20.00
F-026	8-32 x ¾	2.75	21.60	18.80
F-577	10-32 x ½	3.60	28.25	24.50
F-578	10-32 x ¾	4.20	33.15	28.70

FLAT HEAD STEEL MACHINE SCREWS (FIG. C)

F-622	4-40 x ¼	$2.50	$19.85	$17.30
F-623	4-40 x ⅜	2.70	21.25	18.50
F-624	4-40 x ½	2.85	22.65	19.70
F-625	6-32 x ¼	2.95	23.35	20.30
F-626	6-32 x ⅜	3.10	24.40	21.20
F-627	6-32 x ½	3.25	25.65	22.25
F-628	6-32 x ¾	3.40	26.85	23.30
F-629	8-32 x ⅜	3.25	25.65	22.25
F-630	8-32 x ½	3.35	26.50	23.00
F-631	8-32 x ¾	3.50	27.40	23.75
F-632	10-32 x ½	3.55	27.90	24.20

OVAL HEAD STEEL MACHINE SCREWS (FIG. D)

F-506	6-32 x ½	$2.75	$21.80	$18.95
F-507	6-32 x ¾	3.15	24.75	21.50
F-508	8-32 x ¾	3.25	25.65	22.25
F-509	10-32 x ½	3.35	26.50	23.00
F-510	10-32 x ¾	3.50	27.40	23.75

ROUND HEAD STEEL WOOD SCREWS (FIG. E)

Waldom No.	Size Thd. x Lgth. (Inches)	Pkg. of 100	Per 1000	
			1000-4999	5000-Up
F-514	4 x ½	$2.50	$19.85	$17.30
F-515	4 x ¾	2.85	22.65	19.70
F-516	6 x ¾	3.30	25.80	22.40
F-517	6 x 1	3.75	29.30	25.40
F-518	8 x ¾	3.30	26.15	22.70
F-047	8 x 1	4.20	32.80	28.40
F-519	8 x 1¼	4.35	34.20	29.60
F-520	10 x 1½	5.00	39.10	33.80
F-521	12 x 1½	6.50	51.00	44.00
F-522	14 x 1¾	7.85	61.50	53.00

FLAT HEAD STEEL WOOD SCREWS (FIG. F)

F-027	8 x ½	$3.35	$26.50	$23.00
F-048	8 x 1	4.25	33.50	29.00
F-032	8 x 1¼	4.10	32.10	27.80
F-044	10 x 1½	5.15	40.50	35.00

HEX SLOTTED WASHER HEAD SHEET METAL SCREWS (FIG. G)

F-056	6 x ¼	$3.35	$26.50	$23.00
F-057	6 x ⅜	3.30	25.80	22.40
F-050	6 x ½	3.30	26.15	22.70
F-058	6 x ⅝	3.25	25.45	22.10
F-054	6 x ¾	3.45	27.20	23.60
F-051	8 x ¼	2.90	23.00	20.00
F-052	8 x ⅜	3.05	24.25	21.05
F-053	8 x ½	3.35	26.50	23.00
F-055	8 x ⅝	3.55	27.90	24.20
F-059	8 x ¾	3.60	28.25	24.50

SLOTTED HEX HEAD SHEET METAL SCREWS TYPE A (FIG. H)

F-016	4 x ⅜	$2.45	$19.50	$17.00
F-523	4 x ½	3.30	25.80	22.40
F-524	6 x ¼	2.75	21.60	18.80
F-525	6 x ⅜	2.85	22.65	19.70
F-526	6 x ½	3.05	23.90	20.75
F-595	6 x ⅝	3.55	27.90	24.20
F-527	6 x ¾	3.70	29.15	25.25
F-528	8 x ¼	3.05	24.05	20.90
F-529	8 x ⅜	2.85	22.65	19.70
F-530	8 x ½	3.05	23.90	20.75
F-017	8 x ⅝	3.35	26.50	23.00
F-531	8 x 1	3.40	26.85	23.30
F-532	10 x ⅜	3.50	27.40	23.75
F-533	10 x ½	3.60	28.25	24.50
F-534	10 x ¾	3.80	30.00	26.00

PAN HEAD SHEET METAL SCREWS TYPE A (FIG. I)

F-596	4 x ½	$2.65	$20.90	$18.20
F-033	6 x ¼	2.50	19.85	17.30
F-597	6 x ⅜	2.65	20.90	18.20
F-034	6 x ½	2.80	21.95	19.10
F-035	6 x ¾	3.05	23.90	20.75
F-036	8 x ¼	2.85	22.30	19.40
F-598	8 x ⅜	2.75	21.60	18.80
F-037	8 x ½	3.15	24.75	21.50
F-038	8 x 1	3.55	27.90	24.20

ROUND HEAD NYLON SCREWS

FN-800	2-56 x ¼	$6.50	$51.00	$44.00
FN-801	2-56 x ½	6.95	54.50	47.00
FN-802	4-40 x ¼	7.40	58.00	50.00
FN-803	4-40 x ½	6.05	47.50	41.00
FN-804	4-40 x ¾	6.50	51.00	44.00
FN-805	6-32 x ¼	6.50	51.00	44.00
FN-806	6-32 x ⅜	6.50	51.00	44.00
FN-807	6-32 x ½	6.95	54.50	47.00
FN-808	6-32 x ⅝	6.95	54.50	47.00
FN-809	6-32 x ¾	6.95	54.50	47.00
FN-810	8-32 x ⅜	6.50	51.00	44.00
FN-811	8-32 x ½	6.95	54.50	47.00
FN-812	8-32 x ¾	7.40	58.00	50.00
FN-813	10-32 x ½	6.95	54.50	47.00
FN-814	10-32 x 1	7.85	61.50	53.00

NYLON HEX NUTS

FN-853	2-56	$6.30	$49.25	$42.50
FN-854	4-40	6.30	49.25	42.50
FN-855	6-32	6.45	50.65	43.70
FN-856	8-32	6.75	52.75	45.50
FN-857	10-32	6.75	52.75	45.50

BINDER HEAD NYLON SCREWS

Waldom No.	Size Thd. x Lght. (Inches)	Pkg. of 100	Per 1000	
			1000-4999	5000-Up
FN-815	2-56 x ¼	$6.50	$51.00	$44.00
FN-816	2-56 x ½	6.95	54.50	47.00
FN-817	4-40 x ¼	7.40	58.00	50.00
FN-818	4-40 x ½	6.05	47.50	41.00
FN-819	4-40 x ¾	6.50	51.00	44.00
FN-820	6-32 x ¼	6.50	51.00	44.00
FN-821	6-32 x ⅜	6.50	51.00	44.00
FN-822	6-32 x ½	6.95	54.50	47.00
FN-823	6-32 x ⅝	6.95	54.50	47.00
FN-824	6-32 x ¾	6.95	54.50	47.00
FN-825	8-32 x ⅜	6.50	51.00	44.00
FN-826	8-32 x ½	6.95	54.50	47.00
FN-827	8-32 x ¾	7.40	58.00	50.00
FN-828	10-32 x ½	6.95	54.50	47.00
FN-829	10-32 x 1	7.85	61.50	53.00

HEX STEEL NUTS (FIG. J)

F-554	2-56 x 3/16 x 1/16	$1.95	$15.30	$13.40
F-555	3-48 x 3/16 x 1/16	2.35	18.45	16.10
F-556	4-36 x ¼ x 3/32	2.05	16.35	14.30
F-557	4-40 x ¼ x 3/32	2.60	20.40	17.75
F-559	6-32 x ¼ x 3/32	2.70	21.25	18.50
F-560	6-32 x 5/16 x 7/64	2.80	22.15	19.25
F-561	8-32 x ¼ x 3/32	2.70	21.25	18.50
F-562	8-32 x 5/16 x 7/64	2.90	22.85	19.85
F-563	10-32 x ⅜ x ⅛	2.90	23.00	20.00
F-619	12-24 x 7/16 x 5/32	3.65	28.60	24.80
F-564	¼-20 x 7/16 x 3/16	3.95	31.05	26.90

WASHERS

Steel and brass washers are nickel-plated unless otherwise noted. Fiber washers, both flat and extruded, are for insulation of components and controls from chassis or from each other.

FLAT STEEL WASHERS (FIG. K)

Waldom No.	Screw No.	O.D., In.	Pkg. of 100	Per 1000	
				1000-4999	5000-Up
MW-400	#2	7/32	$0.75	$ 6.10	$ 5.30
MW-401	#4	9/32	.80	6.75	5.90
MW-402	#6	⅜	.95	7.75	6.75
MW-403	#8	⅜	.95	8.10	7.00
MW-404	#10	7/16	1.00	8.65	7.45
MW-408	¼	⅝	2.05	16.35	14.30
MW-410	⅜	11/16	3.15	24.75	21.50

FLAT BRASS WASHERS (FIG. K)

MW-400B	#2	7/32	$2.85	$22.65	$19.70
MW-401B	#4	9/32	3.60	28.25	24.50
MW-402B	#6	⅜	3.60	28.25	24.50
MW-403B	#8	⅜	3.60	28.25	24.50
MW-404B	#10	7/16	4.05	31.75	27.50

STEEL CUP WASHERS (FIG. L)

CW-6	#6	.....	$1.10	$ 9.10	$ 7.90
CW-8	#8	.....	1.20	10.65	9.15
CW-10	#10	.....	1.50	12.05	10.60

STEEL SPLIT LOCK WASHERS (FIG. M)

MW-411*	#4	.....	$0.85	$ 8.30	$7.20
MW-412*	#6	.....	1.10	9.10	7.90
MW-413*	#8	.....	1.10	9.45	8.15
MW-414*	#10	.....	1.15	9.80	8.45
MW-415*	¼	.....	1.15	10.15	8.70

*Zinc plated.

FLAT FIBER WASHERS (FIG. K)

FW-374	#4	¼	$1.10	$ 9.40	$ 8.10
FW-375	#6	¼	1.15	9.80	8.45
FW-376	#8	⅜	1.20	10.35	8.90
FW-377	#10	⅜	1.30	11.00	9.45
FW-378	¼	½	1.35	12.00	10.25
FW-379	⅜	⅝	1.60	13.50	11.50
FW-380	7/16	¾	2.45	19.50	17.00

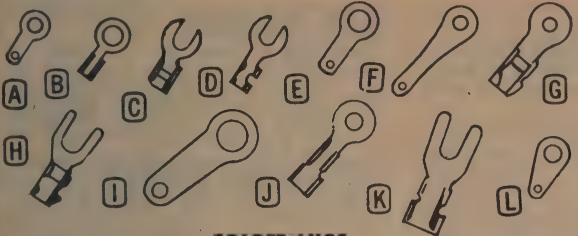
EXTRUDED FIBER WASHERS (FIG. N)

FW-384	#4	9/32	$2.60	$20.55	$17.90
FW-385	#6	5/16	2.85	22.65	19.70
FW-386	#8	⅜	2.85	22.65	19.70
FW-387	#10	7/16	2.90	22.85	19.85
FW-388	¼	½	3.15	24.75	21.50
FW-389	⅜	⅝	3.80	29.85	25.85

FLAT NYLON WASHERS (FIG. K)

NW-875	#4	9/32	$1.80	$15.50	$13.50
NW-876	#6	5/16	2.40	18.80	16.40
NW-877	#8	⅜	2.75	21.60	18.80
NW-878	#10	7/16	2.85	22.30	19.40

SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST



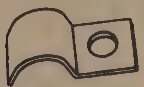
SOLDER LUGS

Brass hot tin-dipped unless otherwise noted.

Waldom No.	Fig.	Thick, In.	Hole Size	Lgth. In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000-Up
T-151	A	.020	#6	1/2	$2.40	$19.00	$16.55
T-152	A	.020	#8	13/16	3.35	26.35	22.85
T-153	A	.020	#10	13/16	3.35	26.50	23.00
T-154	L	.020	#6	9/16	2.60	20.75	18.05
T-156*	B	.032	#6	1/2	3.15	24.75	21.50
T-157	C	.020	#8	41/64	3.30	26.15	22.70
T-158	D	.020	#6	21/32	3.15	24.75	21.50
T-159	D	.020	#8	21/32	3.35	26.50	23.00
T-163	F	.025	#6	1	5.15	40.50	35.00
T-164	F	.025	#8	1	4.05	31.75	27.50
T-166*	G	.020	#6	15/16	7.40	58.00	50.00
T-167*	G	.020	#8	15/16	8.30	65.00	56.00
T-168*	G	.020	#10	15/16	8.30	65.00	56.00
T-170	H	.020	3/16″	25/32	6.95	54.50	47.00
T-187	J	.032	#8	15/16	8.55	66.75	57.50
T-224*	L	.015	#8	17/32	3.60	28.25	24.50
T-225	D	.020	#10	21/32	4.95	38.75	33.50
T-226*	B	.020	#4	9/16	3.15	24.75	21.50
T-227	B	.020	#8	21/32	7.40	58.00	50.00
T-228	B	.020	#10	21/32	7.40	58.00	50.00

*Copper hot tin-dipped.

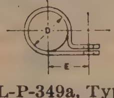
METAL CABLE CLAMPS



Mounting hole, .144″. Material (Mtl.) abbreviations: B, brass, hot tin-dipped; S, steel, cadmium plated.

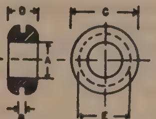
Waldom No.	Mtl., In.	Ht., In.	W., In.	Wire Hold Area	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000 Up
C-201	.020B	7/16	1/4	3/32″	$3.40	$26.85	$23.30
C-202	.032S	5/8	3/8	10/64″	4.25	33.50	29.00
C-203	.032S	11/16	3/8	1/4″	4.50	35.45	30.65
C-204	.032S	15/16	3/8	10/32″	4.70	37.00	32.00

NYLON AND BUTYRATE CABLE CLAMPS



Nylon Clamps: Ideal for temperatures below 300° F (150° C). Meet MIL-P-17091A, Amend. 2, MIL-P-17091B/MIL-P-20693, Type 1, MIL-STD-242A and B (Ships)/MS-39014 (Ord). Mtg. hole .167″ dia. for 3/8″ wide types; 13/64″, others. **Butyrate Clamps:** For indoor or ethyl cellulose replacement. Material approved per MIL Spec. L-P-349a, Type III, Class MH. Ultra-violet stabilized for weather extremes. Mtg. hole 13/64″ dia.

Waldom No.	D In.	W In.	E In.	Std. Pkg.	Net/ Std. Pkg.	Net/ 100	1000/ 4999	5000 Up
NY-GRIP® NYLON CABLE CLAMPS								
CCN-31	1/8	3/8	.310	100	....	$3.65	$28.60	$24.80
CCN-32	3/16	3/8	.373	100	....	3.75	29.65	25.70
CCN-33	1/4	3/8	.407	100	....	3.85	30.20	26.15
CCN-34	5/16	3/8	.448	50	$2.15/50	4.10	32.70	28.60
CCN-35	3/8	3/8	.479	50	2.20/50	4.15	33.25	29.05
CCN-36	7/16	3/8	.510	50	2.30/50	4.40	35.15	30.70
CCN-37	1/2	3/8	.542	25	2.40/50	4.65	36.90	32.20
CCN-38	9/16	1/2	.623	25	1.85/25	6.15	49.30	43.40
CCN-39	5/8	1/2	.654	25	2.00/25	6.60	52.80	46.40
CCN-40	11/16	1/2	.752	20	1.85/20	7.30	59.00	52.00
CCN-41	3/4	1/2	.783	20	1.90/20	7.65	61.45	54.10
CCN-42	7/8	1/2	.845	20	1.95/20	7.75	62.50	55.00
CCN-43	1	1/2	.908	15	1.80/15	9.35	75.30	66.40
BUTYRATE CABLE CLAMPS								
CCB-1	1/8	1/2	.360	100	....	$ 6.90	$ 54.15	$ 46.70
CCB-10	11/16	1/2	.752	20	$3.50/20	13.85	109.75	95.50
CCB-11	3/4	1/2	.783	20	3.60/20	14.20	112.40	97.75
CCB-12	7/8	1/2	.845	20	3.65/20	14.50	115.00	100.00
CCB-13	1	1/2	.908	15	3.00/15	15.25	121.50	106.00
CCB-14	1 1/8	1/2	.970	15	3.20/15	16.15	128.50	112.00
CCB-15	1 1/4	1/2	1.062	10	2.45/10	17.30	139.00	122.00



VINYL GROMMETS

Waldom No.	A In.	B In.	C In.	D In.	E In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000-Up
G-401	1/8	1/16	11/32	3/16	1/4	$3.30	$26.15	$22.70
G-402	3/16	1/16	7/16	7/32	5/16	3.80	29.85	25.85
G-403	1/4	1/16	9/16	1/4	3/8	3.80	29.85	25.85
G-404	5/16	1/16	5/8	1/4	7/16	3.85	30.35	26.30
G-405	3/8	1/16	5/8	1/4	1/2	4.00	31.40	27.20
G-406	1/2	1/16	13/16	9/32	5/8	6.25	49.50	43.00
G-407	5/8	1/16	1 1/8	9/32	7/8	8.40	66.80	58.40

RUBBER GROMMETS

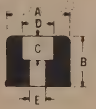
G-300	1/8	1/16	11/32	3/16	1/4	$ 5.60	$44.00	$38.00
G-301	5/16	1/16	9/16	3/16	15/32	8.30	65.00	56.00
G-302	3/8	1/16	11/32	9/32	1/2	9.20	72.25	62.50
G-305	3/16	1/16	7/16	7/32	5/16	4.65	36.65	31.70
G-307	7/16	3/64	3/4	1/4	19/32	10.10	79.25	68.50
G-309	11/32	1/16	5/8	5/16	15/32	8.30	65.00	56.00
G-311	5/8	1/16	1 1/8	5/16	7/8	19.20	151.15	130.70

VOLUME CONTROL AND TOGGLE SWITCH MOUNTING HEX NUTS (FIG. G)

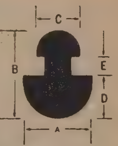
Waldom No.	Size Thd. x Lgth. (Inches)	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000-Up
F-565	3/8-32 x 1/2 x 3/32	$6.05	$47.50	$41.00
F-566	15/32-32 x 9/16 x 5/64	4.95	38.75	33.50
F-567*	.475-32 x 19/32 x 1/16	6.05	47.50	41.00

*Knurled ring nut (Fig. H).

RUBBER BUMPERS



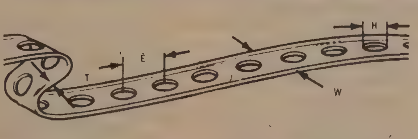
For mounting on all types of electronic equipment. Prevents vibration and protects surfaces under equipment from being marred. Button type installs in pierced hole.

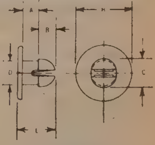


RECESSED SCREW TYPE

Waldom No.	A In.	B In.	C In.	D In.	E In.	Pkg. of 100	Per 1000 1000-4999	Per 1000 5000-Up
B-321	1/2	1/4	5/32	1/4	1/8	$ 5.90	$46.10	$39.80
B-322	3/4	1/4	1/8	1/4	1/8	17.00	134.00	116.00
B-323	5/8	3/8	7/32	1/4	1/8	10.95	86.75	75.50
B-324	3/4	3/8	7/32	1/4	1/8	12.90	102.15	88.70
BUTTON TYPE								
B-361	3/8	3/8	17/64	3/16	.04	$5.00	$38.20	$32.90
B-362	1/2	7/16	11/32	1/4	.04	4.70	35.85	30.90
B-363	5/8	9/16	15/32	5/16	.04	8.80	59.70	51.40

PERFORATED NYLON STRAP AND STUD BUTTONS





Waldom No.†	W	T	H	E	Average Breaking Load (lbs.)	Net Each 25 ft. Roll	Net Each 50 ft. Roll
NYLON STRAP							
NS-932-	9/32	.032	.096	3/16	23	$34.50	$59.75
NS-38-	3/8	.040	.167	5/16	51	20.25	39.50
NS-12-	1/2	.060	.203	25/64	107	24.10	48.95

†Add suffix denoting No. of feet desired; i.e. **NS-38-25.**

Waldom No.	Use With	H	A	B	C	D	L	Net Per 100 100-999	Net Per 1000 1000-Up
STUD BUTTONS									
SB-4	NS-932	9/32	.093	.078	.105	.093	.206	$11.00	$86.00
SB-5	NS-38	11/32	.125	.137	.202	.165	.297	11.45	89.50
SB-6	NS-12	15/32	.156	.153	.238	.200	.359	11.90	93.00

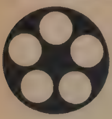
SAMPLES, OR PRICES FOR LARGER QUANTITIES AVAILABLE ON REQUEST

Ersin Multicore Solders and Flux

WIRE CORE SOLDERS WITH ROSIN FLUX

Multicore wire solders are uniquely manufactured with multiple, independent cores of high grade Ersin rosin Flux. Combination of 5 core construction, purity of metals and fluxing activity insures fast wetting even on partially oxidized surfaces. All alloys also available in solid wire solder.

Advantages of 5 Cores



☐ Ultra thin wall of solder between flux and heat source results in instant flux flow for rapid wetting... much more rapidly than possible with single cores.

☐ Eliminates flux voids common to single cores. Also, because of precision manufacturing controls required to achieve 5 cores, uniform flux to metal ratio is maintained as required by QQ-S-571e.

☐ Soldering iron dwell time is minimized because of rapid surface preparation and wetting. Result, heat conduction and radiation are minimized.

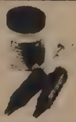
	Alloys Sn/Pb	Multicore Part	Available Gauges	Description/Application
STANDARD ALLOYS† **QPL** **QQ-S-571e**	40/60	SN 40	14, 16, 18	As listed manufactured with RA (rosin-activated) flux. Electronic and general purpose soldering.
	50/50	SN 50	14, 16, 18	
	60/40	SN 60	14, 16, 18, 19 20, 21, 22, 24	
	63/37	SN 63	16, 18, 20, 21, 22	
NEEDLE FINE GAUGES‡ **QQ-S-571e**	60/40	SN 60	24, 28, 32, 34	Drawn to thinnest gauges; for microelectronics, IC and miniature assemblies. RA (rosin-activated) flux.
	63/37	SN 63	22, 24, 28, 32	
SPECIAL ALLOYS†	5/93.5/1.5(Ag)	HMP	16, 18, 22	High melting point. RA flux.
	50/33/17(Cd)	TLC	16, 18, 22	Low melting point. RA flux.
	62/36/2(Ag)	SN 62	16, 18, 20, 21, 22, 24	Silver eutectic solder. RA flux.
	96/4(Ag)	SN 96	18, 22	High strength; lead-free. RA flux.
	95/5(Sb)	95 A	18, 22	Intermediate melting range; good creep resistance. RA flux.
SAVBIT®† **reduces iron tip wear**	50/48.5/1.5(Cu)	SAVBIT	14, 16, 18, 20, 22, 24	Activated rosin core solder. Multiplies life of soldering tips up to 10 times; reduces solution of fine wires & thin films. Outstanding substitute for std. tin/lead alloys.
ALU-SOL®‡ **for aluminum and most aluminum alloys**		45 D	14, 16, 18, 20, 22	Solders without need tor prior cleaning. Resistant to electrolytic corrosion. Water soluble flux residue need not be removed under normal conditions.

NOTE: Solid wire solders available in all gauges and alloys.
† Available in 1 lb. reels or 5 lb. reels up to 19 SWG.
‡ Available in ½ lb. reels.
NOTE: All SN 60 and SN 63 alloys are also available from stock with R (non-activated) and RMA (mildly activated) flux cores. R and RMA flux cores for other alloys on special order.

GAUGE TABLE

Standard Wire Gauge		10 swg.	14 swg.	16 swg.	18 swg.	19 swg.	20 swg.	21 swg.	22 swg.	24 swg.	28 swg.	32 swg.	34 swg.
Decimal Equivalent	Inches	.128	.080	.064	.048	.040	.036	.032	.028	.022	.014	.0108	.009
	mm	3.25	2.03	1.63	1.22	1.02	.91	.81	.71	.56	.38	.27	.23

OXIDE-FREE SOLDER CREAM



Pre-alloyed solder and rosin flux mixture. Available in 500 gm jars or 25 gm syringes. Conforms to QQ-S-571e and is QPL. Syringe used for controlled pinpoint accuracy.

With Activated Rosin Flux (RA)

Multicore Part	Alloy Sn/Pb	Application
XM-27298	SN60 (60/40)	General electronic soldering
XM-27330	SN62 (62/36/2Ag)	Fired on ceramic, Au & Ag surfaces
XM-27328	SN96 (96/4Ag)	High temp; lead free; high joint strength
XM-HMP	5/93.5/1.5Ag	High temperature soldering
XM-TLC	50/33/17Cd	Low temperature soldering
XM-10/90	10/90	High temperature, ceramic chips
XM-27324	Thinner	Thinner for above

With Organic Flux

Multicore Part	Alloy Sn/Pb	Application
XAL-45D	Tin/Lead/Silver (Alu-sol®)	Aluminum soldering

With Inorganic Flux

Multicore Part	Alloy Sn/Pb	Application
XA-96S	96/4Ag	Stainless steel, jewelry (lead free)

BAR SOLDERS

Extruded & Cast

Ultra high purity tin/lead alloys in 1 lb. bars. Meets QPL and QQ-S-571e. Pellets also available for quick initial melt. Std. Sn/Pb alloys are: 63/37 eutectic; 60/40; 50/50; and 40/60.

SOLDERING FLUXES

Rosin Base

Listed are most commonly used and advanced formulations for wavesoldering, with 38% solids (except PC 26). Also available (except PC 26) with 25% solids. In pint, quart or gallon containers. Residues are solvent soluble; need not be removed from most assemblies.

Type Base	Characteristic	Multicore Part
R	Non-activated (MIL-F-14256)	0360
RMA	Mildly-activated (MIL-F-14256)	5381
RA	Activated	366
RA	Activated (15% solids)	PC 26

Can be foam, wave, dip and spray applied except 0360 which is not recommended for foam applications.

Organic/Inorganic (Water soluble)

Residue is water soluble; must be removed.

*Water	Battelle formula (Organic)	PC 101
*Solvent	Fast evaporating (Organic)	PC 112
†Water	Extremely active (Inorganic)	Arax®

*Foam, wave, dip and spray applied.
†Difficult-to-solder metal joining (non-electrical).

FLUX RESIDUE REMOVERS

Stable, selective blends of organic, polar and non-polar solvents.

Multicore Part	Application
PC 80	Cold tank; ultrasonic
PC 81	Vapor degreasing; cold tank

DESOLDERING WICK

Vacuumized braided copper, flux coated for fast desoldering and long storage life. Pull-out 66" wick in special covered reel.

Multicore Part	Width	Application
AA	1/6"	PC boards; thin wires or leads; miniature circuitry
AB	3/32"	General purpose
BB	1/8"	Large wires; connectors or terminals; metal to metal solder connections

DISPENSER & SERVICEMAN'S PAKS

SN 60 — ROSIN CORE

Multicore Part	Gauge	Length (ft.)
EZ 100	18	14
PC 115	22	21
SR 120	19	40
ER 220	19	100

SAVBIT® (REDUCES IRON TIP WEAR)

Multicore Part	Gauge	Length (ft.)
SV 130	18	14
SR 122	18	40
ER 222	18	75

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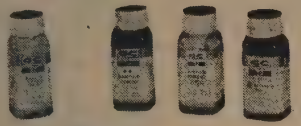
Chemicals and Cleaners



Most chemicals come in 2-oz. wide mouth bottles for easy use. The plastic cap has a brush attached. Write for prices and information on larger containers, also available.

CEMENTS

G-C Epoxy Glue—Super grip, fast set glue is specified by NASA for use in space program. Resists acids, alkali, grease, gas, water, etc. Mix from two tubes in equal parts, hardens in 5 min. under 150° F heat lamp. Kit of 2 tubes, approx. 2 oz. each.
No. 10-347—Net Each Kit........**$6.37**

G-C GR-R-RIP—All new rapid bonding adhesive that makes short work of repair jobs. Sets in seconds; effective on most surfaces: Metal, plastic, rubber and porcelain.
No. 10-115—Net Each 3 oz. tube..**$2.08**

G-C Quik-Stik—Epoxide adhesive permanently bonds ceramic, glass, plastic, wood or metal in 5 minutes. Ideal for almost any kind of repairing. 2½ oz. tubes.
No. 10-114—Net Each..........**$2.15**

G-C Radio Service Cement—The best cement for repairing radios and torn speaker cones or replacing torn cones. Vibrationproof, waterproof and fast drying. Non-shrinking. Use also on plastic, metal, wood, etc. Carded.
No. 10-302—2-oz. Net Each......**$1.42**
No. 10-304—4-oz. Net Each...... **1.85**
No. 10-303—2-oz. Carded. Net... **1.42**

G-C Plastic Cement—For broken plastic cabinets, knobs, dials, and crystal assemblies, grille cloth, etc.
No. 10-324—2-oz. Net Each......**$1.42**

G-C Rubber-to-Metal Cement — For cementing dial drives, rubber mountings, gaskets, hose, weather stripping, etc.
No. 10-352—2-oz. Net Each......**$1.48**

G-C Bond—A cold-setting, rubber like, thermoplastic liquid that dries rapidly to a waterproof, chemically-resistant bond with permanent flexibility and very high strength Glues all materials.
No. 10-4302—2-oz. Net Each.....**$1.85**

G-C Acrylic Cement—For Lucite®, plexiglass, and acrylic materials. Strong, fast drying.
No. 10-4002—2-oz. Net Each.....**$1.33**

G-C "Vinylite" Cement—Thermoplastic cement. Clear plastic cement for use in metals, plastics, paper, leather, etc. Sets on cooling
No. 10-5802—2-oz. Net Each.....**$1.63**

LUBRICANTS

G-C Luberex—Reduces noise by preventing corrosion and prolongs life. Excellent for lubricating bearings, gears etc.
No. 10-1206—2-oz. tube. Net Ea..**$1.85**

G-C Pressurized Lubricating Oil—Ideal for hard to reach trouble spots. Will shoot oil up to six feet. Lubricates moving machinery, gears etc.
No. 10-916—5-oz. aerosol. Net....**$1.83**

G-C Reach-All Pen Oiler—Fine electronic oil for radio and TV servicing. Oil meets MIL-L-6085A specs. Tube extends and retracts; dispenses a drop or fraction. Best suited for gears, guns, fishing reels, etc. ½ oz.
No. 10-984—Pen oiler. Net Each..**$1.58**

EXCEPT FOR THE COMPONENT COOLERS, NO GC AEROSOL USES CHLOROFLUOROCARBON PROPELLANTS

LUBRICANTS (CONT'D)

10-600

G-C Sili-Spray—High quality silicon lubricant. Applies light lubricant film that lasts and lasts, won't leave residue build-up. Can be used in home, office, or workshop.
No. 10-600—6-oz. aerosol.
Net Each.......... **$3.10**

G-C Moisture Remover—Special ingredients remove moisture, deposit a thin lubricating film preventing further oxidation.
No. 10-700—12-oz. aerosol.
Net Each............**$3.12**

CLEANERS

G-C Chloro-Kleen—Non-toxic powerful solvent quickly dissolves grease, dirt, oils, tar and waxes. Contains Chlorothene®.
No. 10-2139—1-gal. Net per gal..**$15.37**

G-C Audio-Video Magnetic Tape Head Cleaner—Removes dirt and oxide build-up, won't harm tape or paint finish. May be used on running tape. Comes with 6" spray extension.
No. 10-620—16-oz. spray can. Net.**$4.82**

G-C Electronic Dry Cleaner—A "dry" cleaner for use on contacts, relays and other electronic devices where residual, oily deposits are undesirable. Also an excellent degreaser and a general solvent for inks and gummy deposits on electrical or mechanical devices, such as typewriters, presses, etc. Non-flammable; does not contain carbon tet.
No. 10-8669—16-oz. Net Each....**$3.45**

G-C Super Freeze Mist—Enables serviceman to pinpoint bad capacitors, transistors, and oxidized joints by cooling components. Leaves no liquid residue; nontoxic, noninflammable. Cools three times faster than other coolers.
No. 10-8668—6-oz. Net Each.....**$2.13**
No. 10-702—15-oz. aerosol. Net... **3.50**

G-C Relay-Kleen Contact Cleaner—"Dry" cleaner for relays and contacts. Leaves no oily residual deposit. Also a degreaser and solvent. Noninflammable; contains no carbon tet. In spray can with extension tube for hard-to-reach places.
No. 10-8682-16—16-oz. Net Ea...**$4.85**

DOPES, INSULATING LIQUIDS

G-C Liquid Tape—For hard-to-get-at places for high voltage insulation. Use also for anti-rust coating, weatherproofing, etc.
No. 10-1762—2-oz. botti.. Net..**$ 2.42**
No. 10-1766—16-oz. bottle. Net..**10.55**

G-C Q-Dope—Liquid polystyrene low-loss coil dope for RF, UHF, and VHF components. Will not change circuit values. Also a polystyrene cement.
No. 10-3702—2-oz. Net Each.....**$1.27**

G-C TV Tube Koat—Fast-drying conductive coating for recoating the outside of TV picture tubes that are scratched or peeling. Also used to coat the inside of TV cabinets for prevention of high voltage leaks and static discharge. Ideal for coating at points where ground clips contact tube.
No. 10-4912—12¾-oz. spray can.
Net Each....................**$4.42**

DOPES, INSULATING LIQUIDS (CONT'D)

G-C TV High Voltage Corona Dope—For preventing corona shorts in high voltage circuits in TV sets. Easy to apply, air drying. Use on any high voltage circuit.
No. 10-5002—2-oz. Net Each.....**$1.67**

G-C Red Glpt Insulating Varnish—Most common coating for solder connections, anti-corona and high voltage points. Heat resistant to 300° F.
No. 10-9002—2-oz. Net Each.....**$1.98**

CHEMICAL SPRAY BOMBS

G-C K-27 Print-Kote—TV silicone resin for printed circuits. 6 oz.
No. 22-204—Clear. Net Each.....**$4.95**

G-C De-Ox-Id®—Electrical contact cleaner for silver, detent, and radar contacts.
No. 10-1906—6 oz. Net Each.....**$3.50**

G-C Spra-Kleen—Combination cleaner and lubricant for electrical contacts.
No. 10-8666-16—16-oz. aerosol.
Net Each......................**$3.62**

SOLVENTS AND THINNERS

G-C Strip-X—Strips enamel from magnet wire. Just dip wire into and wipe off insulation—cleaned, ready for soldering.
No. 10-2602—2-oz. Net Each.....**$1.75**

G-C Radio Service Solvent—Best thinner for all cements—dissolves cement off old cones and speakers.
No. 10-312—2-oz. Net Each......**$1.05**
No. 10-318—8-oz. Net Each...... **2.45**

G-C Q-Dope Thinner—Solvent for Q-Dope and polystyrene materials. Clear water white solvent.
No. 10-4102—2-oz. Net Each.....**$1.18**

TUNER CLEANERS

G-C Tuner Bath—Cleanses and degreases tuners. Does not harm plastics and will not detune.
No. 10-901—16-oz. spray can. Net.**$3.98**

G-C Magic Vista Golden Foam Tuner Cleaner—Puts life in color and black and white TV tuners. Cleans, polishes and lubricates tuner contacts. Safe for plastics.
No. 10-800—8-oz. spray can. Net..**$3.40**

SPRA-KOAT CHEMICALS

G-C Zero-Mist—Instantly located defective circuit components of an intermittent nature due to temperature change. Checks components in operation without removal.
No. 10-8667—11 oz. Net Each....**$3.50**

G-C Corona Dope Spra-Koat—Air-drying corona dope for TV hi-voltage work.
No. 10-4712—11 oz. Net Each.....**$3.32**

G-C Koloid Clear Acrylic—Acrylic ester resin compound for high frequency work.
No. 10-8665—Net Each..........**$4.40**

HEAT SINK COMPOUNDS

G-C DC-Z9 Silicone Heat Sink Compound—Lowers overall temp. level of electronic devices, seals between transistors, diodes etc. and compound will not dry out or harden. Oxides suspended in silicone dissipate "hot spots."
No. 10-8109—1-oz. tube. Net Ea..**$4.42**

G-C Transistor Z5 Silicone Compound—Maintains efficient transfer of heat from transistor to chassis such as in auto radios. Applied to original installation and whenever transistors are replaced.
No. 10-8101—1-oz. tube. Net Ea..**$5.12**

®Trademark: Lucite of DuPont; De-Ox-Id of De-Ox-Id Labs; Chlorothene NU of Dow Chemical Co.

KRYLON Spray-on Enamels and Chemicals

CRYSTAL CLEAR SPRAY

Protects antenna from pitting and rusting; reduces corona and arcing; resists salt spray. Dielectric strength, 450–800 V/mil. short time, ⅛" thickness. Dielectric constant, 3.2 to 3.7 (1,000 Hz). Electrical resistance, 10^{10} ohms/cm^3. In pint size spray cans.

Krylon No. 1302—Net Each, 1-11 .... $ 2.69
Net per Case 29.04

SPRAY ENAMELS

Weatherproof and waterproof. Excellent adhesion. Guaranteed non-clogging valve. Available in the following colors:

Krylon No.	Color	Krylon No.	Color
1401	Bright Silver	1924	Icy Grape
1403*	Dull Aluminum	1929	OSHA Safety Purple
1501	Glossy White	2001*	Hunter Green
1502	Flat White	2002*	Pastel Aqua
1503*	Antique White	2008	Aqua-Turquoise
1601	Glossy Black	2009	Avocada
1602	Flat Black	2011	Jungle Green
1603*	Charcoal Gray	2012	OSHA Safety Green
1604	Shadow Gray	2101	Cherry Red
1605*	Dove Gray	2108	Banner Red
1608	Smoke Gray	2110	Hot Pink
1613	Semi Flat Black	2116	OSHA Safety Red
1701	Bright Gold	2201*	Bright Copper
1801*	Chrome Yellow	2202*	Brass
1802*	Pastel Yellow	2301*	O.D. Khaki
1810	Pineapple Yellow	2401*	Sunset Orange
1811	Harvest Gold	2404	Mandarin Orange
1813	OSHA Safety Yellow	2406	Burnt Orange
1901*	Regal Blue	2410	OSHA Safety Orange
1902*	Baby Blue	2501*	Leather Brown
1903*	Metallic Blue	2504*	Biege
1910	True Blue		

*Available only in pint size spray can.

Pint Size Spray Can—Net Each, 1-11 .... $ 2.69
Net per Case 29.04

GLOWING FLUORESCENT SPRAY PAINT

For use on paper, wood, cloth, glass, metal, styrofoam and some plastics. Dry in minutes. Glows in daylight. Made to MIL-P-21600 (AER) specifications.

Krylon No.	Color	Krylon No.	Color
3101	Red Orange	3105	Cerise
3102	Yellow Orange	3106	Green
3103	Sunset Gold	3107	Blue
3104	Lemon Yellow		

Pint Size Spray Can—Net Each, 1-11 .... $ 3.33
Net per Case 36.00

HIGH-HEAT SPRAY PAINT

Thick paint formulation for high heat conditions. Withstands temperatures up to 600° F for long periods, up to 1,200° F for intermittent periods. Use for touching up steam pipes, boilers, furnaces, ovens, radiators, motors or other surfaces painted with industrial aluminum. Fast drying.

Krylon No.	Color	Krylon No.	Color
1402	Aluminum	2107	Red
1505	White	2408	Orange
1614	Black		

Pint Size Spray Can—Net Each, 1-11 .... $ 3.33
Net per Case 36.00

RED INSULATING VARNISH

Penetrates through multiple layers of taped coils, increasing dielectric strength and leaving a tough, flexible film that resists oil, water, acid and alkalis. Dielectric Strength: Dry, 1,000 volts/mil; wet, 700 volts/mil. Film offers high adhesion characteristics, exceptional arc resistance and nontracking properties. Use on stator windings, armatures, coils, commutator rings, bus-bars, etc.

Krylon No. 7004 Pint Size Spray Can—Net Each, 1-11 . $ 2.69
Net per Case 29.04

HIDE-a-MARK® SPRAY COAT

Covers old stencils, crayon markings, etc. Makes drums, crates, cartons reusable. Dries rapidly, allows new stenciling almost immediately. Ready to use, no brush, no muss, no fuss.

Krylon No. 3007 16 Oz. Spray Can—Net Each, 1-11 . . . $ 2.69
Net per Case 29.04

RUST MAGIC® METAL PRIMER

Penetrates rust layers in minutes to form a tough bonded union that stops rust and prevents further corrosive action. Dries to the touch in 20 minutes; recoatable in two hours. May be top-coated with most finishes: Krylon spray paint, enamel, vinyl, epoxy, acrylic, etc.

Krylon No. 1317 Pint Size Spray Can—Net Each, 1-11 . $ 2.69
Net per Case 29.04

TUNER CLEANER

Removes dirt and gummy deposits from electrical contacts. Provides a non-drying film which lubricates contact surfaces. Prevents oxidation, corrosion and will not harm plastics known to Krylon laboratory.

Krylon No. 1333 16 Oz. Spray Can—Net Each, 1-11 . . . $ 3.26
Net per Case 35.16

ELECTRIC MOTOR CLEANER

Instantly penetrates, dissolves and cleans grease, oil and dirt from motors, generators, fans, etc. Evaporates completely; no residue. Harmless to insulation or painted surfaces. Contains no carbon tet.

Krylon No. 1327 Pint Size Spray Can—Net Each, 1-11 . $ 2.62
Net per Case 28.32

ALL PURPOSE PRIMERS

For home, hobby or in the workshop. Seals out moisture. Builds up and smoothes out surface irregularities to provide a uniform base. Ideal base for Krylon decorator paints. Excellent adhesion. For unrusted metals, wood, ceramics, etc.

Krylon No.	Color	Krylon No.	Color
1314	Platinum Gray	1316	Charcoal Black
1315	White	1318	Gray

Pint Size Spray Can—Net Each, 1-11 .... $ 2.69
Net per Case 29.04

VARNISH SPRAYS

Tough, long-lasting, marine spar grade varnish; resists hot liquids, alcohol and salt spray. For interior or exterior finishes. Drys to touch in 5 minutes. High-gloss (No. 7001) gives a sparkling, crystal-clear finish with exceptional high-gloss retention, clarity and adhesion; resists scuffing. Satin finish (No. 7002) gives a distinctive effect to plain or intricately carved surfaces without disturbing natural grain or other surface patterns.

Krylon No.	Finish	Krylon No.	Finish
7001	High-Gloss	7002	Satin

11 Oz. Spray Can—Net Each, 1-11 .... $ 2.69
Net per Case 29.04

GLASS CLEANER

Heavy duty glass and chrome cleaner. Removes toughest road and factory dirt. Excellent for windshields, mirrors and other glass surfaces. Leaves no film; non-staining; contains no phosphates. Spray on; wipe clean.

Krylon No. 9101 15-Oz. Spray Can—Net Each, 1-11 . . . $ 1.85
Net per Case 20.04

SPRAY CONTACT CLEANER AND LUBRICANT

Spray cleaner and lubricant for switches, controls, relays, etc. Solvent loosens and dissolves gummy deposits on controls and contacts. Lubricant leaves a thin film to prevent further deposit build-up and insure trouble-free action. Complete with plastic tube for controlled spraying in hard-to-get-at places. Not recommended for plastics; use No. 1333 Tuner Cleaner.

Krylon No. 1326 16-Oz. Spray Can—Net Each, 1-11 . . . $ 2.62
Net per Case 28.32

LET-GO PENETRATING OIL AND LUBRICANT

Penetrates and frees frozen parts quickly, without effort. Ideal for loosening rusted nuts and bolts, tight fitting connectors, etc. Displaces moisture on metal surfaces, leaving a rust-resistant film. Excellent for tools and other metal surfaces.

Krylon No. 1332 15-Oz. Spray Can—Net Each, 1-11 . . . $ 2.56
Net per Case 27.60

INSULATING VARNISH

Use on motor windings, switchboard parts, bus bars, etc. Red insulating varnish won't crack, char or deteriorate; stays flexible. Dries tack free in 15 minutes. May be baked at temperatures up to 300° F.

Krylon No. 7004 15 Oz. Spray Can—Net Each, 1-11 . . . $ 2.69
Net per Case 29.04

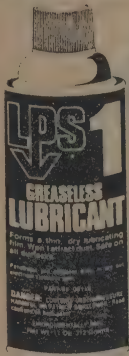
CONTACT CLEANER AND LUBRICANT SPRAY

Solvent action dissolves oily deposits on switches and other electrical contacts. Lubricant leaves thin, non-drying film for protection and continued trouble-free action. Plastic tube extender for hard-to-reach places.

Krylon No. 1351 Pint Spray Can—Net Each .... $ 2.68
Net per Case 28.92

LPS Chemicals

LPS METAL PROTECTORS, LUBRICANTS, PENETRANTS AND RUST INHIBITORS



Lubricates, penetrates and prevents rust and corrosion on metal parts. Also water displacing applications. Applied by spraying, dipping, brush or swab. Harmless to rubber, plastics, paint or finishes; contains no chlorinated solvents or silicones. Confirm to MIL-C-23411 and C-16173D.

LPS NO. 1 GREASELESS LUBRICANT

Powerful, effective lubricant can be applied to even the most delicate mechanisms. Will not pick up dust or dirt. Leaves a clean, non-sticky (.0001″) film that dries wet parts and electrical systems in seconds; stops rust and corrosion in manufacture, storage and shipment. Loosens frozen parts fast. Non-tacky film can be painted, plated, soldered, welded and printed over after 24 to 48 hours.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00017	6-oz. aerosol	12 Regular	1.50	18.00
00116	11-oz. aerosol	12 Regular	1.97	23.60
01128	1-gal. container	4 Containers	6.64#	26.55
00105	5-gal. pail	1 Pail	6.22#	31.10
00155	55-gal. drum	1 Drum	5.33#	293.00

#Denotes price per gallon.

LPS NO. 2 GENERAL PURPOSE LUBRICANT

Forms oily (.0001″) film that protects metals from rust and corrosion indoors and outdoors. Displaces moisture; loosens frozen parts or dries out wet parts in seconds. Excellent lubricant and penetrant. Recommended where a wet coating, lubricant, rust inhibitor is needed; e.g., in flooded machinery or electrical equipment. Can be welded over safely.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00027	6-oz. aerosol	12 Regular	$1.67	$ 20.00
00216	11-oz. aerosol	12 Regular	2.27	27.20
02128	1-gal. container	4 Containers	8.34#	33.35
00205	5-gal. pail	1 Pail	7.95#	39.75
00255	55-gal. drum	1 Drum	6.45#	355.00

#Denotes price per gallon.

LPS NO. 3 HEAVY DUTY LUBRICANT, RUST INHIBITOR

Forms a transparent, waxy (.0002″) film that lubricates and protects metals from rust and corrosion for 2 years or more under severe outdoor, moist, salty and chemical conditions. Displaces moisture and provides excellent penetrating lubricant. Finest anti-seize lubricant and rust inhibitor for chain and cable conveyors. Widely used and recommended for aircraft, ships, railroads, chemical plants, offshore rigs, dairies, breweries, packing plants, overseas shipments, etc.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00037	6-oz. aerosol	12 Regular	$1.73	$ 20.80
00316	11-oz. aerosol	12 Regular	2.37	28.40
03128	1-gal. container	4 Containers	8.56#	34.25
00305	5-gal. pail	1 Pail	8.22#	41.10
00355	55-gal. drum	1 Drum	6.67#	367.00

#Denotes price per gallon.

LPS Stock No. 09100—Bulk Sprayer with Pint Bottle.
Net Each.. **$1.86**

LPS ELECTRO CONTACT CLEANER

Selective cleaning power for precision electrical equipment. Highly stable; no chemical reaction with other materials. Non-toxic; non-flammable; non-conductive. Removes moisture, oil, grease and dirt instantly with no damage to equipment. Evaporates completely; leaves no residue.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00047	6-oz. aerosol	12 Regular	$ 1.93	$ 23.20
00416	16-oz. aerosol	12 Regular	3.67	44.00
04128	1-gal. container	4 Containers	37.50#	150.00
00405	5-gal. pail	1 Pail	33.78#	168.90
00455	55-gal. drum	1 Drum	30.15#	1658.00

#Denotes price per gallon.

LPS INSTANT SUPER CLEANER/DEGREASER

Heavy duty cleaner; cleans and degreases parts and equipment thoroughly without disassembly. Non-flammable; non-conductive; easy to apply. Removes grease, oil, wax, moisture, dirt, tar, brake fluid and other contaminants instantly without wiping; leaves no residue.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00720	20-oz. aerosol	12 Regular	$ 2.43	$29.20
07128	1-gal. container	4 Containers	12.66#	50.65
00705	5-gal. pail	1 pail	11.70#	58.50
00755	55-gal. pail	1 Pail	9.40	517.00

#Denotes price per gallon.

LPS INSTANT COLD GALVANIZE

Ready-to-use, 95% pure zinc compound provides long-lasting protection from rust and corrosion. Dry to the touch in minutes; can be painted over in 6 hours normal drying time or 30 minutes after baking at 350° F for 15 minutes. Withstands water temperature above boiling or continuous dry heat up to 750° F; 1000° F for short period.

LPS Stock No.	Product Size	Packaging	List Price	
			Unit	Case/Drum
00057	7-oz. aerosol	12 Regular	$ 1.93	$ 23.20
00516	16-oz. aerosol	12 Regular	3.20	38.40
00532	1 qt. can	6 Cans	19.00#	114.00
05128	1-gal. can	1 Can	59.00#	59.00
00503	3.5 gal. pail	1 Pail	55.43#	194.00

#Denotes price per gallon or can.

ULTRASONIC CLEANERS

LPS Ultrasonic Cleaner provides the safe gentle agitation for cleaning the most delicate of mechanisms. All units are equipped with timers, stainless steel tanks, and unconditional factory warranty. Use the LPS Ultrasonic Cleaner in combination with the LPS Chemical Products to cut your cleaning costs.

LPS No. 00800 8 Quart Cleaner—List Price....... **$ 395.00**
LPS No. 00820 20 Quart Cleaner—List Price...... **995.00**
LPS No. 00920 30 Quart Cleaner—List Price...... **1250.00**

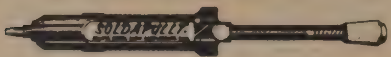
Properties	LPS #1	LPS #2	LPS #3	LPS Inst. Cold Galv.	LPS Inst. Cont. Clnr.	LPS Inst. Super Clnr.	LPS ESA-100
Specific Gravity	.800 Approx.	.820 Approx.	.830 Approx.	—	1.565	1.386	.880 Approx.
Flash Point	180° F	145° F	115° F	110° F	Non-Flam.	Non-Flam.	None
Non-Volatile	5.5%	30%	25%	—	—	—	100%
Viscosity	27 (72° F)	35 (100° F)	48 (100° F)	—	—	—	—
Pour Point	−100° F	−35° F	0° F	—	—	—	N/A
Boiling Point	300° F	325° F	300° F	230° F	118° F	172° F	N/A
Dissipation Factor	.02	.005	.005	—	—	—	—
Dielectric Constant (ASTM-877)	2.11	1.04	.95	—	—	—	—
Dielectric Strength (ASTM D-150) Breakdown Volts, .1″ Gap	32,000	33,230	35,090	—	—	—	—

EDSYN INC.®

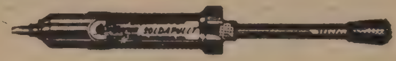
SOLDERING AND DESOLDERING TOOLS

PORTABLE SOLDAPULLT DESOLDERING TOOLS

DS017 DELUXE SOLDAPULLT

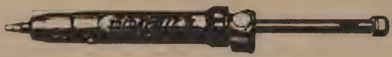


Rugged manual loading tool for volume desoldering. High vacuum. Heavy duty plastic housing. Fully enclosed for safety. Plunger lock feature for compact storage. **Weight:** 4 oz. Uses tip No. SRT12; "O" ring No. ODS31.
Edsyn Model DS017 Deluxe Soldapullt—Net Each **$19.90**



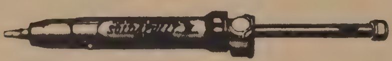
Special purpose desoldering tool for low static work stations. Deluxe features. Static conductive construction reduces sensitive component damage. **Weight:** 4 oz. Uses tip No. LS197; "O" ring No. ODS31.
Edsyn Model AS196 Silverstat Soldapullt—Net Each **$24.25**

PT109 SOLDAPULLT III



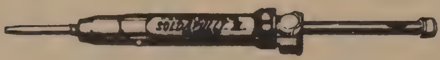
Sturdy tool for routine desoldering. Slim profile, smooth action, very low recoil. Plunger lock feature for compact storage. **Weight:** 3 oz. Uses tip No. SRT12; "O" ring No. OSB32.
Edsyn Model PT109 Soldapullt III—Net Each **$13.85**

PT209 MICRO-TIPPED SOLDAPULLT III



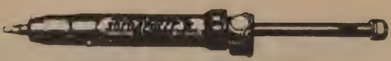
Slim profile, high vacuum impulse, low recoil. Plunger lock feature for compact storage. **Weight:** 3 oz. Uses tip No. MRT16; "O" ring No. OSB32.
Edsyn Model PT209 Micro-Tipped Soldapullt—
Net Each **$16.05**

PT309 LONG-TIPPED SOLDAPULLT III



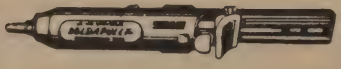
Extra long chamber provides fast vacuum action. Internal shaft self cleans tip with each cycle. **Weight:** 3 oz. Uses tip No. LRT14; "O" ring No. OSB32.
Edsyn Model PT309 Soldapullt III—Net Each **$18.20**

PT409 LOW STATIC POTENTIAL SOLDAPULLT III



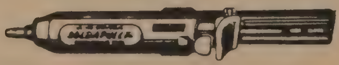
Special purpose desoldering tool for low static work stations. Static conductive construction reduces sensitive component damage. Plunger lock feature for compact storage. **Weight:** 3 oz. Uses tip No. LS197; "O" ring No. OSB32.
Edsyn Model PT409 Soldapullt III—Net Each **$18.20**

US140 UNIVERSAL SOLDAPULLT



Compact manual loading tool. Easy one-hand operation. Adjustable three-position loading stroke. Low mass plunger, rapid vacuum impulse, low recoil. **Weigh:** 1.6 oz. Uses tip No. SRT12; "O" ring No. OS143.
Edsyn Model US140 Universal Soldapullt—Net Each **$9.90**

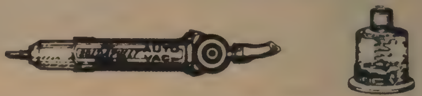
US240 MICRO-TIPPED UNIVERSAL SOLDAPULLT



Compact manual loading tool with micro-tip for small work areas. Adjustable three-position loading stroke. Low mass plunger, rapid vacuum impulse, low recoil. **Weight:** 1.6 oz. Uses tip No. MRT16; "O" ring No. OS143.
Edsyn Model US240 Micro-Tipped Soldapullt—Net Each **$12.20**

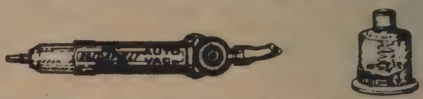
VACUUM POWERED SOLDAPULLT AUTO-VAC DESOLDERING TOOLS

DS117 POWER HEAD SOLDAPULLT AND HOLDER



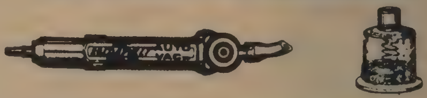
For production soldering. Pushbutton control. Holder automatically cleans tip. Connects to any controlled vacuum source; Vacuum pump No. VP171 recommended. **Weight:** 9.6 oz. Uses tip No. SRT12; "O" ring No. OA193.
Edsyn Model DS117 Power Head—Net Each **$48.40**

DS217 MICRO-TIPPED POWER HEAD SOLDAPULLT



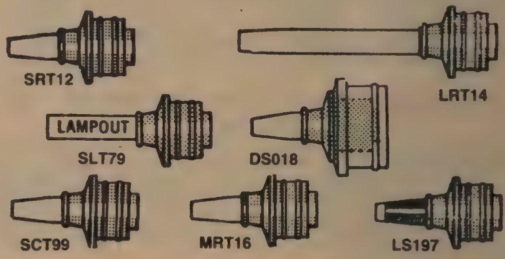
Production desoldering tool with $3/32$" I.D. micro tip for small work areas. Pushbutton control. Holder automatically cleans tip. Connects to any controlled vacuum source; Vacuum pump No. VP171 recommended. **Weight:** 9.6 oz. Uses tip No. MRT16; "O" ring No. OA193.
Edsyn Model DS217 Power Head—Net Each **$54.55**

DS317 SILVERSTAT POWER HEAD SOLDAPULLT



Auto-Vac design for low static work stations. Constructed of static conductive material to reduce damage to sensitive components. **Weight:** 9.6 oz. Uses tip No. LS197; "O" ring No. OA193.
Edsyn Model DS317 Silverstat—Net Each **$60.55**

REPLACEMENT TIPS

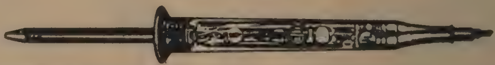


Edsyn No.	For Models	Net Each
SRT12	DS017, PT109, US140	$2.95
SLT79*	DS017, PT109, US140	4.95
SCT99	DS017, PT109, US140	5.15
MRT16	PT209, US240	4.00
LRT14	PT309	5.15
DS018§	Old Model DS017	4.50
LS197	AS196, PT409	4.95

*Lampout bulb-extractor tip. §Consists of SRT12 tip and tip adapter; fits only on Deluxe DS017 with aluminum barrel.

LONER SOLDERING INSTRUMENTS

MODEL 950 CL080

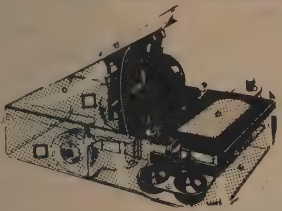


Solid state, closed loop control. One instrument performs soldering cycles from heavy to micro terminations. Temperature control knob for precise adjustment of tip temperature. Fast initial warm-up. Fast, accurate soldering cycles. Electronic components artificially aged for long-term temperature stability. UL listed. **Power Rating:** 115 VAC, 9 to 50 watts. **Temperature Range:** 590° F. to 750° F. **Weight:** 3 oz. Supplied with tip and 3-wire cord. Burn resistant industrial line cord No. BR168 available, factory installed. Five year guarantee.
Edsyn Model 950 CL080 Loner—Net Each **$131.40**
Edsyn No. BR168 Industrial Line Cord—Factory installed.
Net Each **$13.15**

DESOLDERING TOOL AND ACCESSORIES

IDLE-REST SOLDERING STATIONS

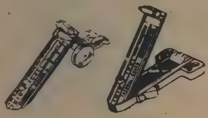
B-170 "BASE 1" SAFELOCK SOLDERING STATION



New, deluxe Idle-Rest "Base 1" professional soldering station holds all Edsyn soldering tools except Klatch DIP extractor. Holds soldering instrument in a clean, safe, energy-saving, static environment. Dual safety locks. Includes RS191 tip-cleaning sponge and two rolls of solder. **Weight:** 19.1 oz.

Edsyn Model B170 Soldering Station—Net Each	**$51.85**
Edsyn No. RS191 Tip-Cleaning Sponge—Net Each	**4.00**

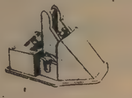
IR088 and IR089 IDLE-REST SOLDERING TOOL HOLDERS



For Loner Model 950 soldering instrument with small diameter tip only. Safe, convenient holders for the Loner. Thermal and polycarbonate construction remains cool. Safely lock holds tool in place. Tip-cleaning sponge tray built-in; sponge included. Two models available; portable model IR089 and bench-mounting model IR088. Model IR089 folds flat for storage. **Weight:** IR088, 6 oz: IR089, 7 oz.

Edsyn Model IR088 Bench-Mounting Idle-Rest—Net Each	**$21.55**
Edsyn Model IR089 Portable Idle-Rest—Net Each	**$21.55**
Edsyn No. RS092 Tip-Cleaning Sponge—Net Each	**4.00**

TL194 IDLE-REST SOLDERING TOOL HOLDER

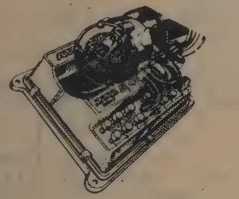


General purpose soldering tool holder for all Edsyn soldering tools. Includes RS199 tip-cleaning sponge. Portable holder sets on bench top. **Weight:** 9.5 oz.

Edsyn Model TL194 Idle-Rest—Net Each	**$27.10**
Edsyn No. RS199 Tip-Cleaning Sponge—Net Each	**4.00**

ATMOSCOPE VACUUM SYSTEM AND ACCESSORIES

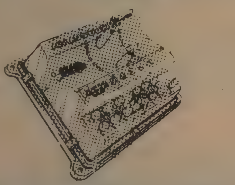
VP171 ATMOSCOPE VACUUM PUMP SYSTEM



All pneumatic system provides high vacuum without electrical motor or parts. Automatic closed loop. Self regulating. Variable pulse-width modulation. Vacuum control system. Vacuum to 22" mercury from 90-120 psi shop air. Operates on demand. Manifold outlets for operation of several vacuum tools from one pump, plus low-pressure air for hot air tips. Uses OV192 "O" rings; VP189 vacuum plugs. **Weight:** 2.5 lbs.

Edsyn Model VP171 Atmoscope Vacuum Pump—Net Each	**$232.00**
Edsyn No. VP189 Vacuum Plugs—Net per set of 12	**5.85**

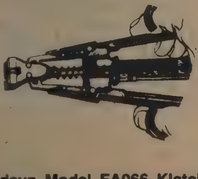
VT190 ATMOSCOPE AUXILIARY VACUUM TANK



For use where multiple tank systems are required. Each tank provides vacuum for up to three complete stations. Tanks interconnect with HC279 hose. **Weight:** 26.5 oz.

Edsyn Model VT190N Auxiliary Vacuum Tank—Net Each	**$80.05**
Edsyn No. HC279 Clear, Rigid Hose—Net per foot	**1.65**

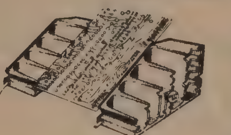
FA066 KLATCH DIP EXTRACTOR KIT



With the precision heat control of the Loner Soldering Instrument in combination with the Dual-Axis action of the Klatch DIP Extractor, extraction is made even more efficient with the addition of new Clip-Tongs. Kit includes Loner 950 Soldering instrument, DE180 Klatch DIP Extractor and Clip-Tongs. Factor assembled and tested.

Edsyn Model FA066 Klatch DIP Extractor Kit—Net Each	**$263.00**

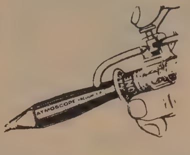
HF172 ATMOSCOPE VICELESS VICE VACUUM HOLDING FIXTURES



Quickly, easily connects to VP171 Atmoscope vacuum pump or any vacuum source of 12-20" mercury. Holding power up to 30 lbs. On/Off switch permits instant hold or release. Uses OH195 "O" rings. **Weight:** 10.1 oz.

Edsyn Model HF172 Vacuum Holding Fixture—Net Each	**$27.60**
Edsyn No. OH195 "O" Rings—Net per set of 4	**2.95**

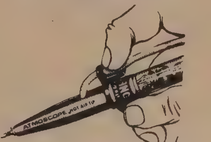
FA068 ATMOSCOPE VACUUM DESOLDERING TOOL KIT



Dual soldering/desoldering instrument with large mass head provides high heat retention for continuous production-line work. Simple one-hand operation. Kit includes Loner 950 Soldering Instrument and AV125 Atmoscope Vacuum Desoldering Tip. Requires 12-in. mercury, min. vacuum source. Factory assembled and tested.

Edsyn Model FA068 Atmoscope Vacuum Desoldering Tool Kit—Net Each	**$230.00**

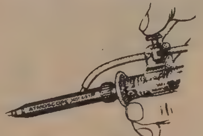
FA070 ATMOSCOPE JET HOT AIR TOOL KIT



Generates hot air up to 350° F. Ideal for shrinking tubing in tight areas, forming small plastic parts, heat testing components, etc. Operates on low air pressure. Kit includes. Liner 950 Soldering Instrument and HA120 Atmoscope Jet Hot Air Tip. Factory assembled and tested.

Edsyn Model FA070 Atmoscope Jet Hot Air Tool Kit—Net Each	**$230.00**

FA071 ATMOSCOPE PROBE HOT AIR TOOL KIT

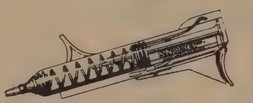


Probe tip concentrates intensity of heat output. Offers higher temperature (to 450° F). Precision trigger. One-hand, one-finger operation. Operates on low air presure. Kit includes Loner 950 Soldering Instrument and HA248 Atmoscope Probe Hot Air Tip. Factory assembled and tested.

Edsyn Model FA071 Atmoscope Probe Hot Air Tool Kit—Net Each	**$230.00**

PORTABLE SPECIAL PURPOSE DESOLDERING TOOLS

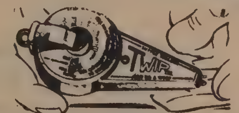
MV124 SNORTINI MINI VACUUM PUMP



Designed for desoldering microminiature components and fine wiring. Resilient teflon tip. Spring-arrestor plunger with cleaning shaft. Uses ST132 tip. EC131 cap and OS142 "O" ring. **Weight:** 7 oz.

Edsyn Model MV124 Snortini Mini Vacuum Pump—Net Each	**$6.65**
Edsyn No. ST132 Snortini Tip—Net Each	**2.20**
Edsyn No. EC131 Snortini Cap—Net Each	**2.20**
Edsyn No. OS142 Snortini "O" Ring—Net Each	**.56**

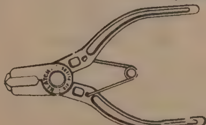
TW108 TWIP SUPPLY HOLDER



Solder and wick at your finger tips. Clips on belt, pocket or tool pouch. Includes SSS94 solder supply spool and SW091 resoldering wick. **Weight:** 2 oz.

Edsyn No. TW108 Twip Supply Holder—Net Each	**$8.85**
Edsyn No. SSS94 Solder Supply—Type 60/40. 25 ft. Net Each	**4.00**
Edsyn No. SW091 Soldasip Resoldering Wick—Size No. 3. 5 ft. Net Each	**4.00**

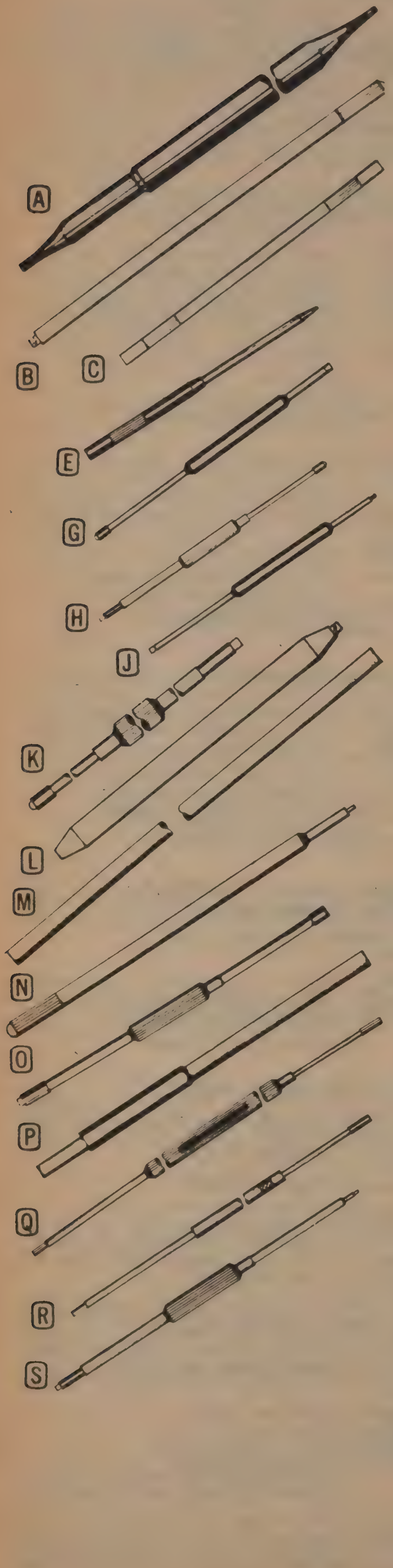
DP270 KLATCH DIP PLIERS



Hand operated DIP extractor pliers for removal of 14 and 16 pin DIPs. **Weight:** 2.5 oz.

Edsyn Model DP270 Klatch DIP Pliers—Net Each	**$13.85**

GC ELECTRONICS Quality Alignment Tools, Kits



ALIGNMENT TOOLS

G-C No.	Fig.	Lgth., In.	Description	Net Each
2520	A	7	Duplex alignment screwdriver fits large or small screws. Large end, 7/32″ wide, small end, 5/32″ wide. Tip thickness conforms to standard slot dimensions.	$1.07
5000	B	6	Metal tip alignment screwdriver made of butyrate, 7/32″ dia.	.75
5004	....	7	No-metal insulating adjustment screwdriver made of natural Delrin*. For aligning all-wave sets. Ends can be re-ground. ¼″ dia.	.78
5009	....	6	Delrin duplex driver with ¼″ and ⅛″ blade for dual purpose aligning. No-metal ends can be reground.	.87
5090	....	7⅞	Metal shaft inspection mirror with plastic handle.	1.43
5090-P	....	7⅞	All plastic insulated inspection mirror.	.88
5097	....	6	Delrin driver with 5/32″ Delrin and ⅛″ metal tips for K-tran and IF transformers.	1.12
8195	....	7⅛	TV channel tuner; non-metallic with ⅛″ narrow blade.	1.12
8196	....	2½	TV, FM short tool made of butyrate; 7/32″ shaft dia., .015″ slot.	.78
8271	C	6	Core aligner for stackpole or stud type, non-slotted cores. Butyrate with milled steel insert and thin screwdriver blade; 7/32″ dia.	1.05
8275	E	5	Aligner for Zenith and other sets; plastic handle with Delrin driver and spring steel tip; ⅛″ shaft dia.	.90
8276	....	6⅛	Duplex aligner for trimmers and IF transformers; butyrate with spring steel projected and recessed tips.	1.00
8277	....	2⅝	Short duplex plastic aligner; spring steel tips; 7/32″ shaft dia.	.90
8282	G	5 7/16	Zenith aligner with plastic .100″ hex wrench and .109″ driver tip; molded Delrin*.	.63
8284	H	5	Magnavox tuning tool. Head for Magnavox chassis Nos. 201 and 202. Hex wrench on both ends; one end undercut to reach bottom slugs in iron coils.	.70
8605	J	5⅛	Capacitor and tuner adjusting tool for trimmer and sealed capacitors, and miniature LC tuners. Has .050″ hex head on one end and screwdriver tip on other.	1.22
8606	K	5	Zenith, Admiral Delrin hex wrench; one end undercut to reach bottom slugs in iron coils, (.100″ across flats of both hex.)	.68
8606-L	K	11	Longer version of No. 8606.	.90
8609	L	5	Yellow plastic alignment tool with one recessed tip and one driver; ⅜″ dia.	.75
8721	M	9	Long reach plastic duplex TV aligner with spring steel tips; 7/32″ shaft.	1.12
8722	....	7	Shorter version of above.	.98
8728-A	....	7	Delrin long reach driver; tip on both ends. ⅛″ dia.	.70
8728	....	12	Longer version of No. 8728-A, fibreglass.	.95
8729	....	16	Longest version of No. 8728-A, fibreglass.	1.20
8987	....	9½	Long, slim plastic screwdriver with regrindable super strong tip; ⅛″ shaft dia.	1.10
8988	....	14½	Longer version of No. 8987.	1.28
9088	....	8	Soldering aid of special stainless steel will not stick to solder; wire brush and wire holder ends.	2.12
9089	N	5¾	TV alignment tool for very small coil openings; plastic with metal end tip.	.90
9091	O	5	Delrin double-end .125″ hex iron core tool; one end undercut to reach bottom slug.	.68
9093	....	8	Print-kote solder aid probe for printed circuits.	2.12
9094	....	8	Print-kote steel brush & scraper for repairing printed circuits.	2.12
9150	P	5½	RCA TV alignment. One end 5/32″ x 7/64″ x 3/64″ slotted tip; other end ⅛″ x .015″ steel tip recessed 1/16″. Nylon.	1.28
9293	....	12	Fiberglass. Both ends 7/32″ x 5/32″ x .031″ screwdriver tip.	1.00
9294	....	16	Long, double end fibreglass alignment stick.	1.13
9295	Q	11	Delrin double end .100″ hex with 5/32″ handle.	.98
9296	....	11	Same as No. 9295 but .075″ hex and knurled ¼″ handle.	.98
9297	R	11	Same as No. 9295 but .075″ hex.	.98
9300	....	5	Hex aligner for adjusting coil slugs; dual .075″ ends.	.75
9302	....	5⅜	3-in-1 hex core tool for adjusting coil slugs. Both ends hex shape. One end is .100″ with undercut shaft; other end is .075″ and .100″.	.75
9304	....	5 9/16	Delrin shaft. One end ⅜″ x .077″ hex head; other end .020″ x .109″ screwdriver tip.	.75
9440	S	5	Transistor IF core alignment tool. One end square, .060″; other end, .104″ hex and rectangle nib .040″ x .075″.	.57

*Registered DuPont trademark.

NO. 8283 MASTER TOOL KIT

Contains 25 tools designed for the electronic technician: complete assortment of alignment and adjustment tools. Also includes tools for mobile communication, marine and amatuer gear. In addition, several 9″ long tools furnished separately.
G-C No. 8283—Net Each...... **$17.97**

NO. 8455 TOOL KIT

Nine essential tools in a durable roll-type leatherette case. Includes one each No. 5097, 8195, 8196, 8271, 8272, 8274, 8275, 8276, 8278.
G-C No. 8455—Net Each........ **$8.95**

NO. 8280 TOOL KIT

Handy leatherette roll-type case contains 16 of the most often used alignment tools. Foldover flap prevents tools from falling out.
G-C No. 8280—Net Each...... **$11.14**

NO. 5050 TOOL SAMPLER KIT

Handsome carrying case holds 47 of the most popular alignment tools and service aids, each clearly visible and with complete descriptive information.
G-C No. 5050—Net Each...... **$47.96**

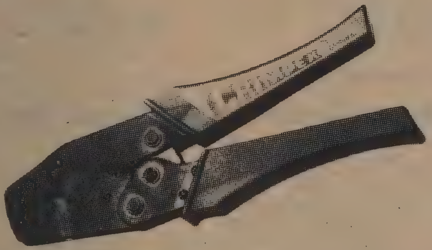
PALADIN Wiring Tools

STRIPLEX MODEL PA1100 WIRE STRIPPER

Strip all wires from #12 AWG to #30 AWG in one step, with one tool. A built-in sensor automatically adjusts to cut and strip solid or stranded wire and multiple cables. The built-in cutter eliminates the need for another tool. Wires feed from the front of the stripper, so it can reach almost anywhere. The stainless steel, self-adjusting stripping blades are rated for 100,000 strips or more and are tough enough to strip up to six conductors at once. The body of the Stripex is fiberglass-reinforced nylon for insulation and long life. Replacement stripping jaws are available.

Paladin Model PA1100—Net Each	$42.95
Paladin No. PA2101—Replaceable stripping jaws for PA1100 wire stripper. Net per set	$14.25
Paladin No. PA2102—Wire stop for PA1100. Net Each	$ 1.10
Paladin No. PA2103—Wire brush for PA1100. Net Each	$ 1.38

MODELS PA1601 AND PA1300 CRIMPING TOOLS



The Crimpex double-action ratcheted hand tools crimp insulated terminals and splices. Integral dies give an electrical and mechanical crimp simultaneously, equal to tools costing twice as much. Two sizes provide a wide range of size choices. Model PA1601 measures 7½" long and crimps terminals from #22 to #14 AWG; the handles are color coded red and blue. Model 1300 measures 9" long and crimps terminals from #22 to #10 AWG; the handles are color coded yellow and red.

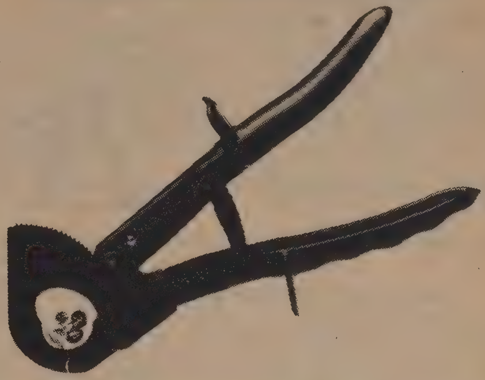
Paladin Model PA1601—Net Each	$49.95
Paladin Model PA1300—Net Each	49.95

DESOLDERING TOOLS MODELS PA1700, PA1701, AND PA1704

Compact hand-held units for removing solder. The metal body resists cracking and the Teflon tips withstand many desoldering operations. The all-metal vacuum system will give excellent operation throughout its long life. Model PA1700 has a standard size tip while Model PA1701 has a miniature tip. Model PA1704 has an anti-static tip.

Paladin Model PA1700—Net Each	$16.95
Paladin Model PA1701—Net Each	16.95
Paladin Model PA1704—Net Each	$19.95
Paladin Model PA2712—Replacement standard tip. Net Each	$2.48
Paladin Model PA2714—Replacement miniature tip. Net Each	2.75
Paladin Model PA2716—Replacement anti-static tip. Net Each	$4.95

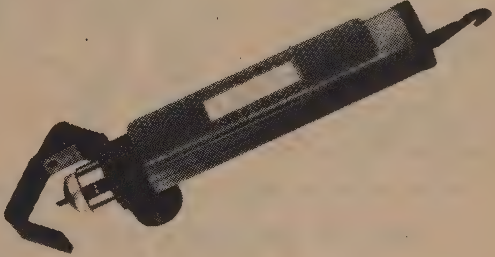
ROUND CABLE CUTTER MODEL PA1815



Hand held cable cutter uses natural mechanical advantage of built-in ratchet to cleanly cut round cable up to size 4/0. Hard-drawn copper, shielded conductors or multiple conductor cables are all cut with a fraction of the pressure needed by other types of cable cutter. Molded handles fit user's hand comfortably.

Paladin Model PA1815 Round Cable Cutter—Net Each	$129.95

CABLE SPLITTER MODEL PA1820



Cable splitter incorporates a swivel blade which, in rest position, cuts a 360-degree path around the cable insulation, and when the side button is pressed, swivels 90 degrees to slit the cable insulation. Built-in hook on rear of tool assists in removing cut insulation.

Paladin Model PA1820 Cable Splitter—Net Each	$19.50

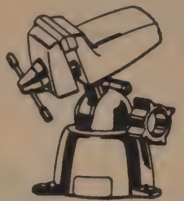
TEFLON WIRE STRIPPER MODEL PA1150

Hand-held, rotary action tool can be adjusted for wire sizes 32 ga. thru 16 ga. Virtually any wire insulation can be adjusted for, including E or EE type Teflon, Kapton, Kynar, Fiberglass or most other difficult insulations. Hand trigger powers tool.

Paladin Model PA1150 Teflon Wire Stripper—Net Each	$159.95
Paladin No. PA2106—Replacement blades for PA1150 stripper. Net per set	$25.25

PANAVISE® Work Positioners

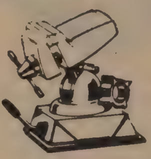
MODEL 301 ORIGINAL PANAVISE



Work holder turns and tilts to any position. The vise head rotates 360° in the base unit. The locking unit in the base tilts 90° in any direction (total 180° of tilt). The housing containing the locking unit rotates 360°. All movements are controlled by one variable pressure knob in the locking unit, making it possible to move the work at any desired drag tension, or to lock it firmly at any position, at any angle, and facing in any direction around the base.

PanaVise Model 301 Original PanaVise—Net Each.... **$29.95**

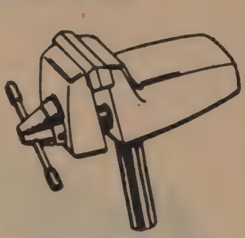
MODEL 381 VACUUM BASE PANAVISE



Model 380 Vacuum Base combines with the model 303 standard PanaVise head to create the same versatility as the standard PanaVise with portability. One-half turn of the mounting lever attaches and releases the powerful suction pad to allow set-up in a variety of places with smooth, nonporous surfaces.

PanaVise Model 381—Net Each.................... **$35.95**

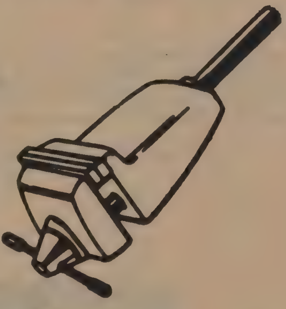
MODEL 303 ORIGINAL HEAD



Stem 5/8″ in diameter fits all positioner bases. Jaws are 2½″ wide, open to 2¼″, and have throat depth of 1 5/16″. Equipped with nylon jaws. Steel jaws are available. Head is pressure die-cast aluminum alloy, with steel and brass inserts which are flared and notched for maximum bonding. Unitized construction, cross-ribbed body, nickel-plated stem, brass bushing for steel adjusting screw, steel guide pins, stainless steel tightening rod.

PanaVise Model 303 Original Head—Net Each....... **$16.95**

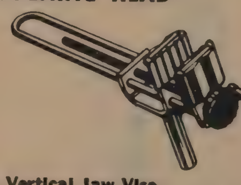
MODEL 304 LOW PROFILE HEAD



This head has the same basic mechanical features as the 303 Standard Head, except the stem is cast into the rear of the head to permit positioning close to the bench surface. Is is particularly suited for the 305 Low Profile Base which permits swinging it out and away from the work bench. The jaws are steel and may be changed with accessory nylon jaws.

PanaVise Model 304—Net Each.................... **$17.95**

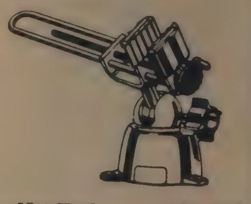
MODEL 366 WIDE OPENING HEAD



Stem 5/8″ in diameter fits all positioner bases and plates. Jaws are 1¾″ wide, open to 6½″, and have throat depth of 2″. Equipped with replaceable, reversible neoprene jaw pads. Designed for positioning and holding electrical and electronic products during assembly and repair.

PanaVise Model 366 Wide Opening Vertical Jaw Vise—
Net Each.................................... **$15.95**

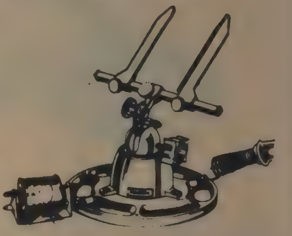
MODEL 396 ELECTRONICS VISE



Designed for holding electrical and electronic products in any position for repair or assembly. The electronics vise is a combination of No. 366 Wide Opening Head and the No. 300 Standard Vise Base. This multi-purpose vise has a matte black finish which greatly reduces eye fatigue. Each full turn of the vise handle moves the jaws .055″, permitting micro-adjustment to the exact pressure required.

PanaVise Model 396 Electronics Vise—Net Each...... **$28.95**

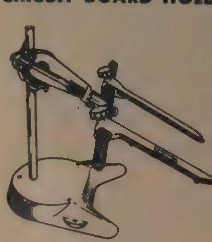
MODEL 324 ELECTRONIC WORK CENTER



This handy work center is convenient yet economical. The angle of the solder iron holder maintains the iron at the proper heat, and the solder holder self-centers the wire. Sturdy, stable, yet easily mobile—the electronic work center keeps everything right at hand (combination of models 315, 300, 312, and 371.).

PanaVise Model 324—Net Each.................... **$49.95**

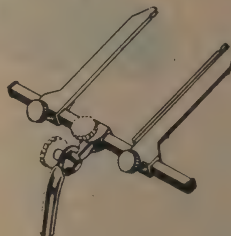
MODEL 333 RAPID ASSEMBLY CIRCUIT BOARD HOLDER



This circuit board holder features eight position rotating adjustment and six positive lock positions in the vertical plane. Cross-bars are available up to 30″ to hold circuit boards up to 28 inches in width. Extra sets of arms can be used for multiple board work. Spring loaded, the 333 features tilt angle adjustment, height adjustment, and quick board rotations for easy component insertion and soldering.

PanaVise Model 333—Net Each.................... **$35.95**

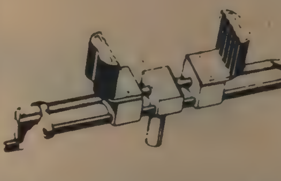
MODEL 315 CIRCUIT BOARD HOLDER ASSEMBLY



Board-holding arms extend 6″ from the bar. Arms have V-shaped grip groove designed to hold any board up to 5/32″ thick without damage to the circuit. The black steel square bar keeps arms aligned. Each arm moves and locks independently. The support unit has two adjustments, one to permit moving the work left to right, and the other to tilt the entire unit 220°. Standard equipment includes one 14″ cross bar and one set of arms, one rigid and one with spring tension. Cross bars up to 30″ long are available. Stem 5/8″ in diameter fits all 300 series bases and mounting plates.

PanaVise Model 315 Circuit Board Holder—Net Each.. **$19.95**

MODEL 376 SELF CENTERING EXTRA WIDE OPENING HEAD



Double action jaws provide fast opening and closing. Supports heavy loads. Opens to a full 9″. Ribbed on one side and "V" grooved on the other, the 376 reversible jaw pads firmly hold cylindrical or odd-shaped items. Fits all of the series 300 bases.

PanaVise Model 376 Self Centering Head—Net Ea.... **$19.95**

REPLACEMENT JAWS

PanaVise Model 343 Nylon Jaws for Model 303 and 304—
Net Per Pair.................................... **$2.00**

PanaVise Model 344 Grooved nylon Jaws for Model 303 and 304—
Net Per Pair.................................... **$2.00**

PanaVise Model 353 Plated steel Jaws for Model 303 and 304—
Net Per Pair.................................... **$3.00**

MODEL 346 DELUXE NEOPRENE PADS

Thick molded pads with a corrugated surface to firmly hold the most delicate items. Reversed, a wide "V" configuration for securely holding cylindrical items. For Models 366 and 376.

PanaVise Model 346—Net Per Pair.................. **$2.50**

Listing Continued Next Page

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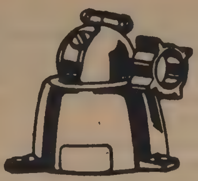
PANAVISE® Work Positioners

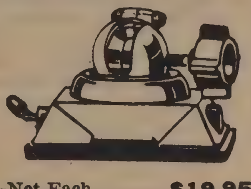
MODEL 300 ORIGINAL BASE



The three lugs are positioned for mounting on No. 308 mounting plate, No. 311 bench clamp, No. 312 tray base, No. 310 surface plate, or mounts directly on bench, wall or work station.

PanaVise Model 300 Original Base—Net Each.....**$13.95**

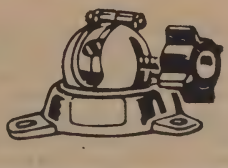
MODEL 380 VACUUM BASE



Attaches instantly and tightly to any smooth, non-porous surface. Ideal portable positioner for quick, changeable set-ups. A turn of the lever attaches and releases the heavy duty suction pad. Moistening the pad increases the powerful grip. Suction pad is replaceable.

PanaVise Model 380 Vacuum Base—Net Each........**$19.95**

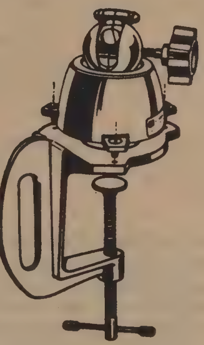
MODEL 305 LOW-PROFILE BASE



Height of 2½″ allows working close to the mounting surface. Same flange configuration as original base. Three lugs are positioned for mounting on No. 308 mounting plate, No. 311 bench clamp, No. 310 surface plate, No. 312 tray base, or directly to bench.

PanaVise Model 305 Low-Profile Base—Net Each.....**$13.95**

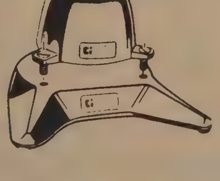
MODEL 311 BENCH CLAMP BASE MOUNTING



Portable mounting for the No. 300 or No. 305 base. Clamps securely to the edge of a work bench, table, or counter. The clamp attaching screw opens to a maximum 3½ inches. Mounting screws are included. **Base not included;** illustrated to show application.

PanaVise Model 311 Bench Clamp Base Mounting—Net Each...............**$16.95**

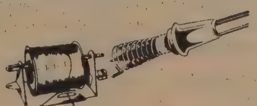
MODEL 308 WEIGHTED BASE MOUNTING PLATE



A stable foundation with anti-skid feet for portable nonmarring mounting of No. 300 or No. 305 bases. The sturdy mounting is made of cast iron and weighs 5 lbs. (2.3 Kg.). Mounting screws are included. **Base not included;** illustrated to show application.

PanaVise Model 308 Weighted Base Mount—Net Each...........**$16.75**

MODEL 371 SOLDERING STATION



Consists of soldering iron holder, solder (or wire) holder, 2 nib sponges and mounting screws, conveniently packaged for pegboard display. Iron holder and solder holder mount on bench, on wall, or any PanaVise mount or screwdown base.

PanaVise Model 371 Soldering Station—Net Each......**$5.95**

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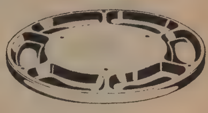
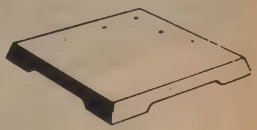
MODEL 312 TRAY BASE MOUNT



Mounts standard Model 300 base, or Model 305, plus the all new Model 371 Solder Station. Large, 8¼″ dia. tray also catches small parts that might be dropped, separates tools and keeps parts sorted. Constructed of cast metal. Six slip-resistant neoprene feet keep tray where you want it.

PanaVise Model 312 Tray Base Mount—Net Each....**$12.95**

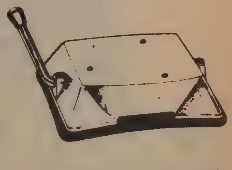
MODEL 310 SURFACE PLATE/BASE MOUNT



A precision cast-iron flat surface (Blanchard ground) which is ideal for layout work and as a portable PanaVise work station. 10″ x 10″ (254mm x 254mm) square and weighs 10 lbs (4.5kg) with neoprene non-marring feet. Exceptionally stable. Drilled and tapped in one corner for the 300 Original Base or the 305 Low Profile Base. Mounting screws included.

PanaVise Model 310—Net Each.....................**$39.95**

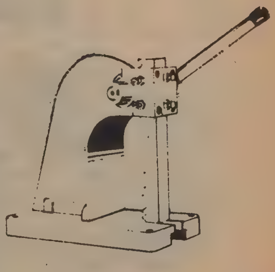
MODEL 379 VACUUM MOUNT



A heavy duty suction pad which attaches firmly to any non-porous, smooth surface. It is pre-drilled for attaching instruments or devices with three holes two inches apart. Flat surface, 3″ x 3¼″.

PanaVise Model 379 Vacuum Mount—Net Each......**$10.95**

MODEL 502 PRECISION PanaPress®



Although it weighs only 6 lbs. and stands only 7″ high, this hand arbor press can exert pressure up to ¼ ton. Ideal for pressing bearings, sleeves, or collars, for forming and assembling small parts, for punching, riveting, broaching, and for dozens of other operations. Arbor and table-plate are die-cast of high strength Zamak III, and the operating mechanism is of hardened and ground steel. Ram is reversible, and four nylon gibs assure precise ram directional control. **Throat Depth:** 2⅛″ (54mm). **Vertical Capacity:** 2½″ (89mm). **Base Dimensions:** 3⅝″ x 7″ (92 x 178mm). **Ram Size:** ¾″ sq. x 6¼″ (19 sq. x 151mm). Model 501 Standard PanaPress is the same as 502 but without precison gibs.

PanaVise Model 502—Net Each....................**$63.95**
PanaVise Model 501—Net Each....................**$59.95**

ACCESSORIES

Model No.	Description	Net Each
316	Extra Arms (pair) for 315 Circuit Board Holder	$10.95
318	12″ Bar for 315 Circuit Board Holder (add 40c per 2″ up to 30″ max.)	3.95
319	Circuit Board Replacement Knobs, 4 pieces	2.00
325	Up/Down Positioner with Bench Clamp	19.95
331	Up/Down Positioner with Flush or Wall Mounting Plate	19.95
336	Up/Down Converter Base for 325 and 331 Assemblies	15.95
338	Rigid Fixturing Head for 325 and 331 Assemblies	7.45
339	Standard Fixturing Head for 325 and 331 Assemblies	10.95
340	Deluxe Fixturing Head for 325 and 331 Assemblies	13.45
359	Universal Holder, Attachment for 366 wide Opening Head	6.95
337	Fixturing Head, Fits all 300 Series Bases	8.45
400	Heavy Duty Base, Accepts only 437 Heavy Duty Face Plate	22.95
437	Heavy Duty Fixturing Head for 400 Heavy Duty Base Only	7.95

platt TOOL CASES

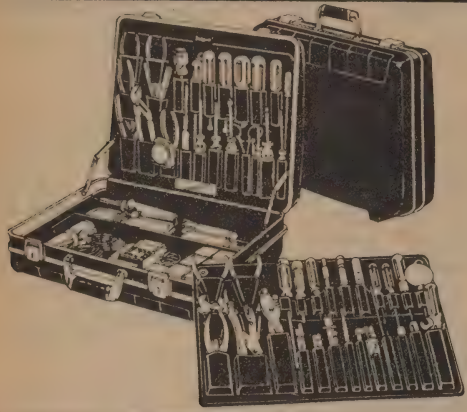
The heart of a Platt tool case is our patented molded pallet. It's made of Texin, an exceptionally tough urethane elastomer material that combines many of the best qualities of rubber, leather, metal and plastic in one rugged compound. It's the same materials used in the manufacturing of auto bumper guards, football cleats, gears and snowmobile tracks.

The pockets are molded without any seams, stitches or rivets forming a solid one-piece unit (pat#3,880,285.) No worries about tearing, ripping, cutting, or puncturing the pallet as you work. All Platt tool cases and pallets come with an unequalled one year warranty.

MODEL 600T. Our biggest seller. This molded tool case is made of tough, lightweight, good looking ABS Thermoplastic. It has an aluminum rim for extra strength, aluminum rivets, stainless steel hinges, a heavy duty steelcore handle, nickel plated brass key locks and steel stays that keep the lid open with a full load of tools. (Hardware is all rust resistant.) Inside there are molded ABS compartments for extra tools, parts and equipment and multiple lid pockets for papers and order books. The 600T is extra deep for meters and comes with 2 pallets for the technicians who need a full compliment of tools and components. It measures 18½ x 13 x 6 and weighs 8¼ lbs. Color: Black.

MODEL 607T. Same as 600T except 7½" deep with reinforced corners.

MODEL 605T. Same as 600T except one pallet and 4¼" deep. wt. 6 lbs.

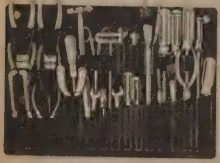


MODEL 800T. Platt's new injection molded tool case. the ultimate in rugged molded construction. It's made of high impact polypropylene – the toughest of the industrial grade plastics that's resistant to most chemicals. It has extra thick walls not only in the center of the case, but at the corners. Combined with Platt's molded urethane pallets you have one of the strongest cases on the market. Heavy duty aluminum valence, die cast chrome plated locks and cast zinc golf grip handle. Adjustable aluminum interior divider and lid pockets. It measures 18 x 13½ x 6 and weighs 7½ lbs. It come with 2 pallets. Color: Charcoal brown.

MODEL 805T. Same as 800T except 1 pallet and 5" deep. wt. 6½ lbs.

MODEL 610T. DELUXE SOFTSIDE TOOL CASE. Platt's softside tool case has unique, patented soft/molded construction.* It has a skin of rich reinforced expanded vinyl sewn through a thick layer of ABS Thermoplastic. It combines the rugged lightweight qualities of Platt's molded cases with the rich good looks of a softside case. This innovation in technique gives you two layers of construction and a pocket of air between, that together absorbs blows and rough handling assuring you the original shape and condition of this product throughout years of hard use. Cast chrome side catches, combination lock and golf grip handle complete the deluxe hardware package, which is otherwise identical to Platt's molded cases. It measures 18½ x 13¼ x 5½ and weighs 9 lbs. It comes with one pallet, however, there is room for a second pallet. Color: Gaucho Brown.

*NO. 3,958,676



682-OB

684-NB

TOOL ORGANIZER. The Platt pallet has many uses out of a case. Use it to organize your tools at home, or work. If your tools were in a Platt pallet instead of lying around your work bench or tool box they wouldn't be getting lost or dirty. There are individual pockets for all your tools. Tools are easy to find and keep clean. It has two aluminum eyelets that can be hung conveniently on ordinary hooks, nails or screws. Comes in two different layouts. It measures 17½ x 12½ x ¼. Color: Black. 682-OB-27 cavities. 684-NB-22 cavities.

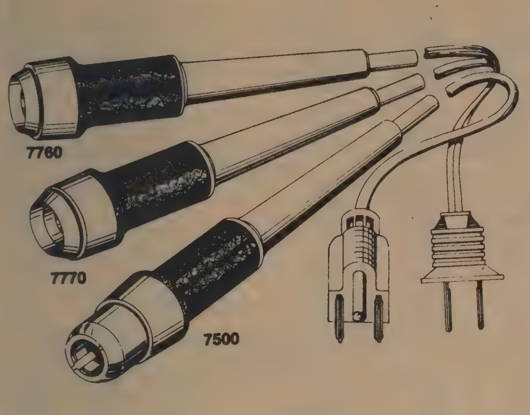
Tools not included

Ungar

"STANDARD LINE" MODULAR THREAD TOGETHER SOLDERING TOOLS, HANDLES, HEATERS, TIPS

The modular "Standard Line" provides the professional with a durable, yet economical, iron for all types of soldering. Ideal for soldering electronic devices, printed circuits and heavier wiring. A wide variety of handles and interchangeable heaters and tips permits custom design of the most exact soldering iron for any particular soldering application. Molded handles with "soft touch" grip are perfectly balanced for comfort and fatigue free soldering.

HANDLES



MODEL 7500 GROUNDED 3-WIRE HANDLE

The handle, when assembled with the S or HP Series heaters, is completely grounded from tip to plug and eliminates electrostatic tip potential. A unique, spring-loaded ground plate reflects heat away from the operator's hand. **For use only with S or HP heaters.**

Ungar Model 7500 Grounded Handle—Net Each.............................. $12.78

MODEL 7760 HANDLE

Same as Model 7770, but red.

Ungar Model 7760 Handle—Net Each.............................. $6.38

MODEL 7770 HANDLE

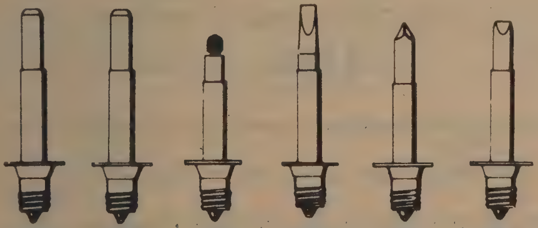
Convection-cooled, molded grip for "clean room" use. Octagonal handle prevents rolling. Stainless steel heat reflector. Accepts all Standard Line heaters and integral heater/tips, including the S and HP series. Blue.

Ungar Model 7770 Handle—Net Each.............................. $6.38

TECHNICIAN'S KIT

Ungar Model 7070A Technician's Soldering Kit—33 W, 120 VAC with No. 7760 handle, No. 1237-S heater, and Nos. 111, 113 and 116 tips.
Net Each.............................. $18.02

HEATERS



THREAD-IN THREAD-ON HEATERS

Ungar No.	Temp. °F	Watts @ 120 VAC	Description	Net Each
		For ¼" THREAD-ON TIPS		
537†	700§	27	2.80" lg. × .312" diam.	$5.63
537-S	700§	23	3.67" lg. × .365" diam.	7.35
1237-S	800§	33	3.65" lg. × .375" diam.	8.40
4037-S	900§	45	3.45" lg. × .365" diam.	9.75
37HP*	1000	50	3.27" lg. × .365" diam.	14.87
		FOR ⅛" THREAD-IN TIPLETS AND NIBS		
535†	700§	27	2.90" lg. × .312" diam.	$5.63
535-S	700§	23	3.18" lg. × .365" diam.	8.62
1235-S	800§	33	3.56" lg. × .365" diam.	8.47
4035-S	900§	45	3.56" lg. × .365" diam.	9.75
		FOR $^3/_{16}$" THREAD-IN TIPS		
4045-S	900§	45	3.56" lg. × .365" diam.	$9.75

†Not for use with No. 7500 handle. *Chrome-plated, corrosion-resistant. §Approximate.

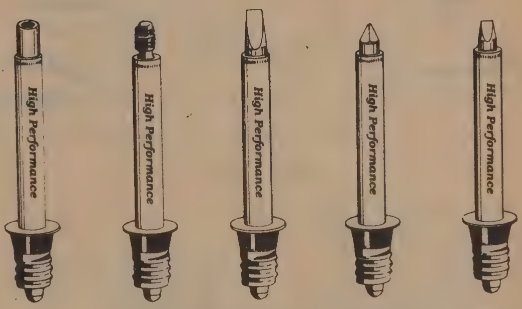
INTEGRAL HEATER/TIPS

Ungar No.	Temp. °F	Watts @ 120 VAC	Material	Tip Shape	Net Each
533†	800§	27	Copper	Lg. chisel	$5.80
536†	900§			Pyramid	5.80
539†	900§			Sht. chisel	5.80
533-S	800§	23	Copper	Lg. chisel	7.72
536-S	900§			Pyramid	7.75
539-S	900§			Sht. chisel	7.67
1233-S	900§	33	Copper	Lg. chisel	8.75
1236-S	900§		Iron clad, plated	Pyramid	9.97
1239-S	1000§			Sht. chisel	9.88
4033-S	1000§	45	Iron clad, plated	Lg. chisel	12.12
4036-S	1100§			Pyramid	12.15
4039-S	1100§			Sht. chisel	12.08
33 HP	850-1000	50	High perf.	Lg. chisel	16.49

†Not for use with No. 7500 handle. §Approximate.

3000 SERIES HIGH PERFORMANCE THERMO-DURIC™ HEATERS FOR STANDARD LINE IRONS

The improved thermal design of the Thermo-Duric™ element results in faster heat-up; typically 1.5 minutes. Heaters have lower power consumption; a 50 watt heater outperforms an 80 watt conventional iron. Less energy is consumed at no load idle temperature; typically 15% less. Higher insulation breakdown levels than nichrome heaters. 3000 Series heaters have long life, stainless steel jacket construction.



⅛" Thread-In ¼" Thread-On Long Taper Chisel Pyramid Short Taper Chisel

NEW 3000 SERIES HIGH PERFORMANCE HEATERS

Ungar No.	Temp. °F	Watts@ 120 VAC	Description	Net Each
3570	700	40	Use with ⅛" thread-in tiplets and nibs	$ 8.63
3580	750	45		9.73
3510	850	50		11.21
3770	700	40	Use with ¼" thread-on tips; with 100 adapter, all ⅛" tips; with 101 adapter, all $^3/_{16}$" thread-in tips.	8.45
3780	800	45		9.66
3710	1000	50		14.87

3000 SERIES HIGH PERFORMANCE INTEGRAL HEATER/TIPS

All integral tips are copper, iron-clad, silver-plated.

Ungar No.	Temp. °F	Watts @ 120 VAC	Tip Shape	Net Each
3370	700	45	Long taper chisel	$ 8.86
3380	800	45		10.06
3310	1000	50		16.49
3670	700	40	Pyramid	8.91
3680	900	45		11.46
3610	1100	50		13.96
3470	800	40	Short taper chisel	8.81
3480	900	45		11.36
3410	1100	50		13.89

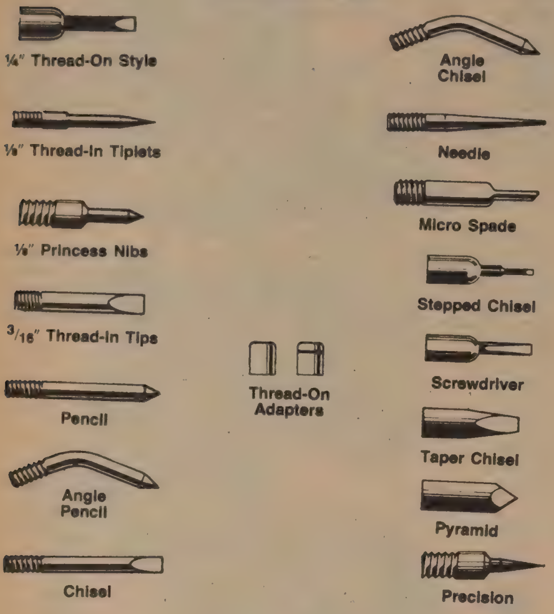
CONTINUED ON NEXT PAGE

Ungar TIPS, 3-WIRE AND DI® LINE SOLDERING IRONS

INTERCHANGEABLE NIBS AND TIPS

Greater versatility than ever with Ungar's modular system. With the addition of two adapters, tips may now be adapted to fit as many as 12 different heaters and 3-wire irons. The ⅛" thread-in nibs and tips thread directly into the metal body of the Princess® heating capsule and the Standard Line ⅛" thread-in heaters. The 3/16" thread-in tips fit directly into the Standard Line 3/16" thread-in heaters. With the use of the appropriate adapter (#100 reduces from ¼" to ⅛"; #101 reduces from ¼" to 3/16"), the same nibs and tips will fit the Standard and DI Line ¼" thread-on heaters and the 3-Wire Line irons. Of course, the ¼" thread-on tips fit the same Standard and DI Line heaters and the 3-Wire Line irons.

NIBS AND TIPS



TIPS AND ADAPTERS

Ungar No.	Material	Tip Shape	Size, Ins.		Net Each
			Ovrl. Lgth.	Tip Diam.	
¼" THREAD-ON TIPS					
PL-111	Plated*	Pencil	1¼	⅛	$2.32
111	Copper	Pencil	1¼	⅛	1.15
PL-113	Plated*	Chisel	1¼	⅛	2.32
113	Copper	Chisel	1¼	⅛	1.15
PL-114	Plated*	Micro spade	1	.05	2.32
PL-116	Plated*	Pyramid	1	5/16	2.40
116	Copper	Pyramid	1	5/16	1.22
PL-133	Plated*	Taper chisel	1 1/16	⅛	2.40
133	Copper	Taper chisel	1 1/16	⅛	1.22
PL-138	Plated*	Needle	1¼	3/64	2.32
PL-151	Plated*	Screwdriver	1¼	⅛	2.32
PL-153	Plated*	Chisel	1 1/16	3/16	2.32
PL-155	Plated*	Stepped chisel	1¼	1/16	2.32
⅛" THREAD-IN TIPLETS					
PL-331	Plated*	Pencil	¾	⅛	$1.85
331	Copper	Pencil	¾	⅛	.80
PL-332	Plated*	Angle pencil	⅝	⅛	1.85
332	Copper	Angle pencil	⅝	⅛	.80
PL-333	Plated*	Chisel	¾	⅛	1.85
333	Copper	Chisel	¾	⅛	.80
PL-338	Plated*	Needle	¾	1/32	1.85
PL-340	Plated*	Micro spade	9/16	3/64	1.85
7062	Plated*	Precision	¾	3/32	3.20
7154	Plated*	Pencil	¾	1/16	1.85
7155	Plated*	Chisel	¾	1/16	1.85
⅛" PRINCESS NIBS					
6960	Plated	Pencil	⅜	1/16	$2.00
6950	Copper	Pencil	⅜	1/16	1.03
6961	Plated	Screwdriver	7/16	1/16	2.00
6951	Copper	Screwdriver	7/16	1/16	1.03
6962	Plated	Spade	⅜	1/16	2.00
6952	Copper	Spade	⅜	1/16	1.03
6963	Plated	Precision	⅜	1/16	3.58
6953	Copper	Precision	⅜	1/16	1.97
3/16" THREAD-IN TIPS					
PL-823	Plated*	Pyramid	1	3/16	$2.08
823	Copper	Pyramid	1	3/16	.97
PL-824	Plated*	Chisel	1	3/16	2.08
824	Copper	Chisel	1	3/16	.97
PL-833	Plated*	Chisel	1¾	3/16	2.80
PL-834	Plated*	Angle chisel	1¼	3/16	2.80
ADAPTERS					
100	¼" thread-on heaters to ⅛" thread-in tips				$0.77
101	¼" thread-on heaters to 3/16" thread-in tips				.77

*Iron clad and silver plated.

3-WIRE SOLDERING IRONS

FOR USE WITH MORE THAN 40 INTERCHANGEABLE TIPS FOR SOLDERING AND DE-SOLDERING

Provides many of the advantages of the Standard Line as a production soldering tool with approved grounding. Lightweight, integrated iron, has molded handle and octagonal cool grip. Threaded metal body for tip selection. Accepts ¼" thread-on tips, with adapter #100, ⅛" nibs and Tiplets; with adapter #101 for all 3/16" thread-in tips. Choose from more than 40 tips and de-soldering accessories. Simplified design makes it easy for in-shop replacement or change of heating lement or cord. Three wattages available; temperature ranging from 650° F to 1000° F approx. 3-wire line is designed to eliminate static induced currents, iron is especially desirable for work on MOSFET and other IC components. Meets OSHA requirements. UL Listed.

Ungar No.	Voltage	Watts	Tip Temperature	Net Each
1270*	120	27	650° F-750° F	$19.18
1350*	120	35	750° F-850° F	19.18
1450*	120	45	900° F-1000° F	19.18

*Adapter and tip not included; all temperatures approx.

REPLACEMENT PARTS FOR 3-WIRE SOLDERING IRONS

Ungar No.	Description	Net Each
127-S	27 W heating element assembly	$6.93
135-S	35 W heating element assembly	6.93
145-S	45 W heating element assembly	6.93
129	Heat reflector and washer	.82
1300	Threaded body for heating element	5.57
1360	Handle and cord set assembly	8.27

D I® DOUBLE INSULATED LINE

- **Easy to use—lightweight and compact design with flexible cord set.**
- **Easy to change—rugged stainless steel thread-in heaters.**
- **Cool—handle is molded of durable plastic, with finger-ease grip.**
- **Safe—new heater and handle with two-conductor cord set and safety plug, are double insulated. Meets OSHA requirements: UL Listed.**
- **Plus—use any Standard Line thread-on tips or with Ungar's #100 adapter, all ⅛" Tiplets and nibs. With adapter #101, all 3/16" thread-in tips. Choose from more than 40 tips and desoldering accessories.**

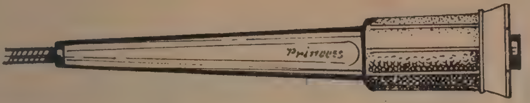
Ungar No.	Volts	Watts	Tip Temperature*	Net Each
360	120	27	650° F-750° F	$10.50
361	120	35	750° F-850° F	10.50
362	120	45	850° F-950° F	10.50
363†	120	45	850° F-950° F	12.38
5550	120		Thread-in handle	7.85

*All temperatures are approximate. †With integral tip.
Note: Use DI heater and handle together.

QUANTITY DISCOUNTS AVAILABLE ON REQUEST

Ungar® / Princess®

SOLDERING TOOLS, ACCESSORIES



Miniature soldering iron designed to meet requirements for precision micro-electronic circuitry and high density assembly. Offer thermo-efficiency and work capacity never before achieved in small feather-weight irons. Slim design, turquoise handle assures deft soldering. Choice of easy-to-assemble units thread together for versatility in tip shapes and temperature capabilities. Low initial investment, economical maintenance and inexpensive parts replacement.

PRINCESS HANDLES

Slim, cool design is molded of heat-resistant nylon in pastel turquoise. New, cool plastic grip. Integral cord set, available in 2 or 3-wire models. Rated 120 volts AC/DC. Cords are flexible vinyl-covered. Heat capsule threads into handle socket. Perfectly balanced, pencil slim, new cooler operation. UL listed.

Ungar No.	Cord Type	Net Each
6902	2-conductor with plug	$11.25
6903	3-conductor with NEMA plug	14.72

PRINCESS HEAT CAPSULES

Threaded to accept the special thread-in Princess soldering nibs and mating to the Princess handles with finger-tip ease. Also accept "Standard Line" ⅛" Tiplets if desired (will not accept Imperial tips). Choice of three wattages and temperature ranges to suit most production requirements. For 120 VAC/DC operation. Size. 3⅛" long; extends 2⅜" from handle. Wt., 0.2 oz.

Ungar No.	Watts	Temperature Range	Net Each
6910	10	575° F to 650° F	$13.22
6915	15	700° F to 775° F	13.22
6918	18	775° F to 850° F	13.22

PRINCESS SOLDERING NIBS

Choice of silver-plated iron clad or unplated cadmium copper tips in four standard shapes. Finger-tip ⅛" thread-in use on any Princess heat capsule listed above. Ungar's ⅛" Standard Line Tiplets may also be used (see listing on another page). Wt., .03 oz.

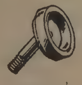
Ungar No.	Shape	Lgth., In.	Tip Stepped to:	Net Each
6950	Pencil	7/16	.080" × .015"	$1.03
6951*	Screwdriver	½	.080" × .055"	1.03
6952*	Spade, 45°	7/16	.080" dia.	1.03
6953*	Precision point	7/16	.080" × .005"	1.97
6960	Pencil	7/16	.080" × .015"	2.00
6961	Screwdriver	½	.080" × .055"	2.00
6962	Spade, 45°	7/16	.080" dia.	2.00
6963	Precision point	7/16	.080" × .010"	3.58

*Cadmium copper tips; all others, silver-plated iron-clad.

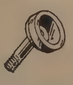
PRINCESS IC DE-SOLDER KIT

Ideally suited for PC boards 1/32" or less, using low-density circuitry, unplated eyelets or mounting holes. Includes 3-wire grounded Princess handle, 18-watt heat capsule and three (No. 6945, 6947, 6948) de-solder tips. (Not Illustrated.)
Ungar No. 6939 De-Solder Kit—Net Each..$44.35

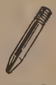
DE-SOLDER TIPS



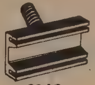
6944



6945



6947

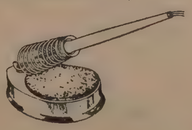


6948

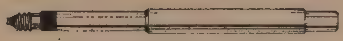
Iron-clad, nickel-plated and pre-tinned tips may be used with Ungar "Standard" line heating units No. 535, 535-S, 1235-S and 4035-S or Princess heat capsules (for lower or higher tip temperatures).

Ungar No.	Tip Temp. at 18 W	Description	Net Each
6943	700°F	TO pkg. (cup) .6" dia.	$5.60
6944	710°F	TO pkg. (cup) .5" dia.	5.60
6945	720°F	TO pkg. (cup) ⅜" dia.	5.60
6946	780°F	TO pkg. (cup) .28" dia.	5.60
6947	750°F	Slotted (lead and tab) straightener	4.43
6948	570°F	Dual inline IC	6.25

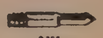
PRINCESS SOLDERING IRON HOLDER



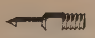
Plastic base for convenient holding of Princess iron. Comes with specially-processed sponge for tip cleaning. Weight, 3 oz.
Ungar Model 6990 Holder—
Net Each...$9.87
Ungar No. 6991 Sponge Refill—Replacement cleaning sponge for above holder.
Net Each...$1.42



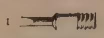
6910, 6915, 6918 Heat Capsules



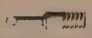
Nib



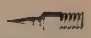
6950, 6960



6951, 6961



6952, 6962



6953, 6963

PRE-ASSEMBLED PRINCESS COMBINATIONS

MODEL 6975 SOLDERING IRON

All-in-one package provides a complete Princess soldering iron with three interchangeable copper nibs. Includes one 6902 handle with 2-conductor cord and plug, one 6910 Heat Capsule rated 10 watts, one 6950 pencil nib, one 6951 screwdriver nib and one 6952 spade nib.

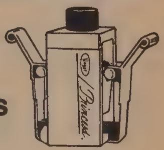
Ungar No. 6975 Princess Assembly—Net Each.................................$26.97

MODEL 6900 SOLDERING STATION

Fully assembled iron with three interchangeable copper nibs, plus Princess holder with cleaning sponge. Includes: 6902 handle with 2-conductor cord and plug, 6910 heat capsule rated 10 watts, 6950 pencil nib, 6951 screwdriver nib, 6952 spade nib, and 6990 soldering iron holder complete with cleaning sponge.

Ungar No. 6900 Soldering Station—Net Each...................................$36.85

PRINCESS DUAL INLINE AND TO-5 EXTRACTORS

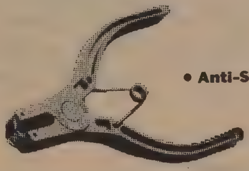


6982

No. 6982 extracts up to 16-pin dual inline IC's; use 6948 desolder tip.

Ungar No. 6982 Dual Inline—Net Each...........$5.27

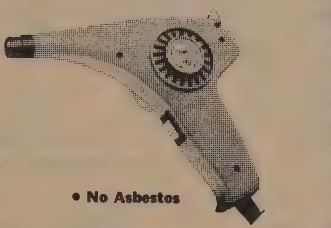
DIP EXTRACTION PLIERS



Spring loaded extraction pliers remove 4-48 pin DIP's without bending leads. Self-activating; one hand operation.

Ungar No. 6980 DIP Extraction Pliers—Net Each..............................$17.47

HEAT GUN



Hot air tool offers a unique combination of features and benefits to users of heat shrinkable products as well as many other lab and industry uses. Lightweight of only 13 oz. Insures positive control wherever precise hot air direction is required. Reduces operator fatigue. Air stream width at nozzle is ⅜". Reducing baffle, included with gun, reduces air stream, width to .200"; 4 baffle reflectors are included for preforms and shrink tubing applications. Reflectors are designed to decrease shrinking time by directing hot air flow around all tubing surfaces simultaneously. Delivers an air flow temperature at the nozzle of approx. 750° F to 800° F in seconds. Designed for either hand-held use, or may be placed on table or workbench without need for holder. On-off cold switch at trigger position. Allows cooling or drying as well as heat applications. For solder preforms and all polyvinyl, olefins, silicone rubber and TFE heat shrink materials; also ideal for shrink film packaging, epoxy curing and encapsulation. UL Listed. Rated 250 watts, 120 VAC only.

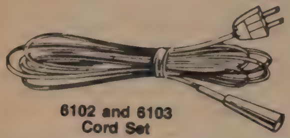
Ungar No. 6966C Heat Gun—3-wire model. With NEMA plug for approved grounding. Net Each...$70.00

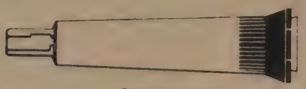
REPLACEMENT PARTS

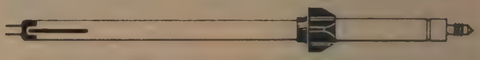
Ungar No.	Description	Net Each
168	Cone and insulator	$8.75
182	Heating element with diode assembly	14.88
183	Motor and scroll assembly	24.92
187	3-wire cord assembly	7.85
188	Hot-off-cold switch	5.08
189	Heat gun case	21.00
6956	½" large reflector	.90
6957	1¼" large reflector	.97
6958	Reducing baffle	1.95
6964	Reflector for shrink tubing	4.00

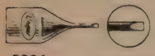
QUANTITY DISCOUNTS AVAILABLE ON REQUEST

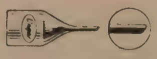
Ungar® / *Imperial*® PRECISION MATCHED COMPONENTS, SOLDERING TOOL


6102 and 6103 Cord Set


6100 Handle


6200, 6201, 6202 and 6203 Heat Cartridges


6304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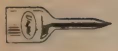
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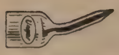
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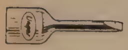
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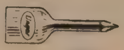
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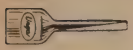
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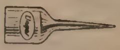
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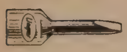
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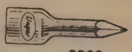
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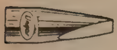
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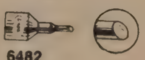

6482

Interchangeable cord sets, tips and heat cartridges ideal for critical micro-miniature components. Reliable, low wattage, high temperature performance. Perma-Cool handle has double cushion of air combined to 5 heat-transition surfaces for continuous cooling. Components individually packaged on cards; assemble to suit your needs. All electrical tools and components are UL Listed and rated at 120 volts AC/DC. **Not Interchangeable with "Standard Line".**

PERMA-COOL COLORED HANDLE

Cool, pastel turquoise handle has been proven to reduce operator fatigue. Virtually indestructible, handle is made of high strength plastic resin. Diecast heat sink built-in. Pencil type design for easy handling. UL Listed. Size, 0.8" O.D. at grip; 4.7" lg. Weight, 1 oz.

Ungar No. 6100—Handle only. Net Each.. **$4.65**

INTERCHANGEABLE CORD SETS

Instantly adapts your iron to any 2 or 3 wire outlet. Molded female connector plugs onto the Perma-Cool handle without tools. Vinyl-covered cord, 18 gauge, 65 strands extra-flexible copper; terminals and connectors molded polyvinyl chloride. Center conductor (3-wire type) is insulated with green polyvinyl. Weight: 2½ oz., 2-wire; 4 oz., 3-wire. Supplied in pastel turquoise color only.

Ungar No.	Description	Net Each
6102	Standard 2-wire cord set with plug	$ 7.05
6103	3-wire cord set with NEMA plug	10.30

INTERCHANGEABLE LONG-LIFE HEAT CARTRIDGES

Stainless steel, sealed cartridge with element at tip and threaded end for quick tip changes; keeps heat at tip where it belongs. Four ratings available: **6200:** 45 watts for 750-950° F; accepts all tip Nos. 6304 through 6482. Size, 7½" l. × .363" dia. (2½" l. from flange). Wt., 1.1 oz. **6201:** Same, but 35 watts for 650-850°F. **6202:** Same, but 25 watts for 600-800°F. **6203:** 55 watts for heat range, 850° to 1150° F (2.65" l. from flange). Accepts Imperial© MINI-TIPS® only.

Ungar Number	Rated Watts	Net Each	Ungar Number	Rated Watts	Net Each
6200	45	$12.57	6202	25	$12.57
6201	35	12.57	6203	55	14.83

THREAD-ON IMPERIAL SOLDERING TIPS

For Imperial heat cartridges only. New, improved iron-clad tips are pre-tinned and chrome-plated for improved performance.

TIPS FOR 6200, 6201, 6202, or 6203 HEAT CARTRIDGES

Ungar No.	Shape	Material	Size, In. O.D. × L.	Temp. (°F)* With Cartridge Rated			Net Each
				25 W	35 W	45 W	
6304	Micro-chisel	Iron clad	3/64 × ½	750	800	890	$3.05
6305	Micro-spade	Iron clad	3/64 × ½	750	800	890	3.05
6312	Pencil	Copper	⅛ × ¾	750	800	910	1.43
6313	Pencil	Iron clad	⅛ × ¾	60	750	860	3.05
6316	Offset pencil	Iron clad	⅛ × ¾	690	750	860	3.05
6318	Long taper chisel	Copper	⅛ × ¾	750	800	890	1.43
6319	Long taper chisel	Iron clad	⅛ × ¾	690	750	860	3.05
6324	Long taper pyramid	Copper	⅛ × ¾	750	800	890	1.43
6325	Long taper pyramid	Iron clad	⅛ × ¾	690	750	860	3.05
6331	Screwdriver	Iron clad	⅛ × ¾	690	750	860	3.05
6333	Needle	Iron clad	⅛ × ¾	690	750	860	3.05
6366	Long taper chisel	Iron clad	3/16 × ¾	680	730	850	3.57
6368	Long taper pyramid	Copper	3/16 × ¾	....	....	....	1.70
6473	Long taper chisel	Copper	⅜ × ¾	....	....	....	1.70
6481	Tapered screwdriver	Iron clad	¾ × 3/32	690	750	860	3.05
6482	Micro-spade stepped	Iron clad	3/64 × ½	700	770	860	3.05

*Slight variation in line voltage will give ± 25° F deviation.

ANTI-SEIZE

Ungar No. 8001—Specially formulated lubricant for use on metals operating at high temperatures. Reduces tip thread seizure and prolongs tip life. ½ oz. tube. Net Each........................ **$2.12**

QUANTITY DISCOUNTS AVAILABLE ON REQUEST

IMPERIAL COMPLETE SOLDERING IRON

Ungar No. 6010—Includes one 6100 handle, one 6102 cord set, one 6200 heat cartridge and 6318, 6368, and 6473 Tips. Net Each.. **$29.08**

Ungar® DESOLDERING • SYSTEMS • ATTACHMENTS • TOOLS • KITS • ACCESSORIES

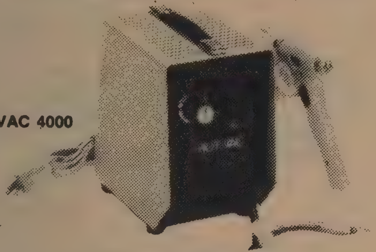
HOT VAC® DESOLDERING SYSTEMS

HOT VAC 2000A

HOT VAC MODEL 2000A

The HOT VAC 2000A uses normal shop air supply to remove excess and unwanted solder from PC boards. A solid state control regulates tip temperature from 500° to 1000° F and adapts the HOT VAC 2000A to a wide variety of applications. The long-life tips are available in a range of hole sizes from .032" to .089" and are machined from an alloy which resists abrasion and erosion by the solder. The solder reservoir is located in the handle and can be emptied even while the unit is operating. The exhaust is muffled for quiet and can be fitted with a remote exhaust for clean room applications.

Ungar No. HOT VAC 2000A Desoldering System—
Net Each.. **$365.00**



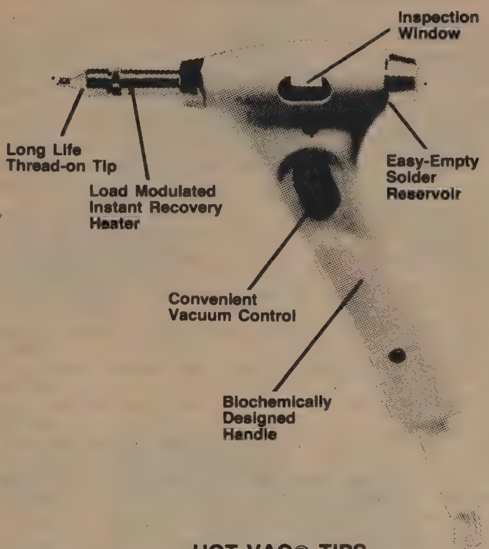
HOT VAC 4000

HOT VAC MODEL 4000

Similar to the Model 2000A, except has built-in vacuum pump that operates only when the handle switch is actuated. A low-noise exhaust system and vibration isolators keep the pump quiet. The case is steel with baked-enamel finish. A convenient handle and a locking device to secure the handle permit easy transporting.

Ungar Model HOT VAC 4000 Desoldering System—
Net Each.. **$399.00**

HANDLE ASSEMBLY


Inspection Window
Long Life Thread-on Tip
Load Modulated Instant Recovery Heater
Easy-Empty Solder Reservoir
Convenient Vacuum Control
Biochemically Designed Handle

HOT VAC® TIPS

Ungar No.	Dimensions (Ins.)				Net Each
	Inside Dia.	Outside Dia.	Depth	Length	
2005	.032	.060	.12	.75	$5.62
2006	.040	.080	.12	.75	5.62
2007	.062	.100	.12	.75	5.62
2008	.089	.120	.12	.75	5.62
2009	.062	.100	.37	1.00	5.62
2010	.032	.060	.015	.64	6.17
2011	.040	.080	.015	.64	5.62
2012	.020	.040	.12	.75	6.23

DESOLDERING, CLEANING TOOL

Reduced PC repair and rework time. Melts and removes solder in fast, one-hand operation. Complete with Standard Line Handle 7770. Heating Unit #4037-S and Tip #7806, with special liner for long life.

Ungar No. 7800A Tool—Net Each.. **$35.95**

Ungar No. 7806—Replacement tip for above; .057" dia. hole.
Net Each.. **$2.08**

Ungar No. 7812—Same as above, but with .033" dia. hole.
Net Each.. **$2.92**

MODEL 7825 DE-SOLDERING ATTACHMENT

Melts and removes solder in one operation. Vacuum action lifts solder from PC boards. Tips use special liner for long life. For use with #4037-S or 37 HP Standard Line heating unit and 7760, 7500 or 7700 handles; also 3-wire iron #145 and new DI Line heater #362. Uses No. 7806 or 7812 Tips below.

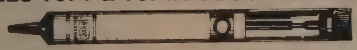
Ungar No. 7825 De-Soldering Attachment—Net Each.......................... **$20.60**

UNGAR SOLDER-OFF BULB

Desoldering bulb with TFE tip facilities accurate printed circuit soldering and cleaning. May be used with "Imperial" and "Standard Line" soldering irons. (Not illustrated.)

Ungar No. 7805 Solder-Off Bulb—Net Each.. **$3.60**
Ungar No. 7851 Replacement TFE Tip—Net Each................................... **$1.90**

MODELS 7874 & 7874A DESOLDERING PUMPS



• One hand operation • Easy-to-set plunger • Press-release switch • Automatic self-cleaning, no-clog replacement tip • Lightweight anodized aluminum • Static free

Ungar Model 7874 Low Static Desoldering Pump—Net Ea.............. **$14.95**
Ungar Model 7874A Static Free Desoldering Pump—Net Ea.............. **17.95**
Ungar Model 7875 Low Static Replacement Tip—Net Ea.................... **2.95**
Ungar Model 7876 Static-Free Replacement Tip—Net Ea.................... **3.16**

DIP DESOLDERING KITS

Adapt Ungar Standard Line, 3-Wire Line, DI Line and UNGARmatic irons for fast, easy desoldering for DIP's up to 16 pins. Each kit contans a No. 6948 slotted bar desolder tip which melts the solder on all leads, a No. 6982 spring-loaded DIP extractor which extracts the DIP at the precise moment of solder melt, a roll of Super-Wick to remove the solder from the holes in the board, and a tip adapter.

Ungar No. 50DK Desolder Kit—For UNGARmatic controlled soldering irons. Net Each.. **$14.40**
Ungar No. 51DK Desolder Kit—For Standard Line, 3-Wire and DI Line irons. Net Each.. **$12.95**

SUPER-WICK

Woven copper braid to remove solder from unwanted spots on PC boards. Pure water-white rosin flux assures clean and contaminant-free desoldering.

Ungar No.	Width, Inches	Application	Net Each
5002*	.050	.060" to .125" pads	$1.93
5004*	.100	.190" and larger pads	2.37
5011	.025	.060" and smaller pads	1.75
5012	.050	.060" to .125" pads	1.70
5013	.075	.125" to .190" pads	1.75
5014	.100	.190" and larger pads	2.00

*1 per blister card.

8800 SOLDERING IRON HOLDER

Holds all Ungar soldering irons except the Princess line and ceramic-type heaters. Also can be used for the Hot-Vac 2000/4000 desoldering tool and most soldering irons with $^5/_{16}$" to $^7/_{16}$" diameter heater cases. Sturdy, freestanding iron holder holds iron in proper position. Easy to assemble. Convenient to cleaning sponge and tray.

Ungar No. 8800 Soldering Iron Holder—Net Each.............................. **$12.47**

SOLDERING IRON HOLDER

Protects operator from burns; prevents iron breakage. Use with Ungar Standard Line, Imperial Line, 3-Wire Line and D I Line. Attaches easily to bench; angle adjustable.

Ungar No. 8000 Holder—Net Each.................. **$6.10**

KLEEN-TIP SPONGE AND TRAY

Specially processed sponge provides the surest way to clean soldering tips. Removes oxidation, prevents contamination and insures soldering reliablity. Phenolic tray. Fastens to bench.

Ungar No. 400—Net Each.. **$3.32**
Ungar No. 455 Refill Sponge—Individually packaged.
Net Each.. **$1.30**

QUANTITY DISCOUNTS AVAILABLE ON REQUEST

ISO-TIP®
cordless soldering iron

WAHL CLIPPER CORPORATION
ORIGINATORS OF PRACTICAL CORDLESS SOLDERING

CORDLESS SOLDERING IRON

Cordless convenience, lightweight, and 50-watt performance. Tip temperature reaches 700° F in 5 seconds. Up to 125 soldered connections on one battery charge. Nickel cadmium batteries feature long service life. Isolated-tip design eliminates electrical leakage and the need for grounding when soldering in delicate solid-state equipment. Designed for good "feel" and balance—only 8 inches long and 6 ounces in weight. Built-in light to illuminate working area. Safety lock switch prevents accidental heating. Standard batteries recharge from charging stand or from 12 V automotive battery in 12 to 16 hours. Quick-charge special premium batteries recharge in 3–4.5 hours and have extended life. Full line of accessories and several complete kits provide variety of selections.

Wahl No. 7550 Iso-Tip Soldering Iron—With No. 7545 fine point tip, packed in No. 7595 protective plastic tube. Net Ea.. **$21.60**

Wahl No. 7535 Regular Tip—General purpose for most soldering requirements. .156" dia. at tip. Net Each.............. **$3.25**

Wahl No. 7545 Fine Tip—For printed-circuit boards and delicate equipment. .070" dia. at tip. Net Each.................. **$3.25**

Wahl No. 7546 Heavy Tip—Greater heat output for large wires, windy locations, etc. .187" dia. at tip. Net Each........ **$3.25**

Wahl No. 7556 Tuner Extension Tip—Long, insulated shaft with fine point. .070" dia. at tip. Net Each................. **$5.25**

Wahl No. 7566 Micro Tip—For extremely delicate soldering. .020" dia. at tip. Net Each.............................. **$3.25**

Wahl No. 7577 Chisel Tip—General purpose for most soldering requirements. 5/32" diam. at tip. Net Each.............. **$3.25**

Wahl No. 7541 Circuit Breaker Tip—Net Each.......... **$3.25**

Wahl No. 7569 "V" Tip (5/32")—Net Each.............. **$3.25**

Wahl No. 7571 Beveled Tip (1/16")—Net Each........... **$3.25**

Wahl No. 7572 Blunt Tip (5/32")—Net Each............ **$3.25**

Wahl No. 7573 Tinning Tip (5/32")—Net Each.......... **$3.25**

Wahl No. 7574 Concave Centering Tip (5/32")—Net Ea... **$3.25**

Wahl No. 7579 Beveled Tip (3/32")—Net Each........... **$3.25**

Wahl No. 7596 Knife Tip (1/32")—Net Each............ **$3.25**

Wahl No. 0168 Replacement Bulb—Net Each.......... **$0.70**

Wahl No. 0170 Replacement Standard Battery—Two cells assembled. Net Each.. **$8.80**

Wahl No. 7578 Charging Stand—Plugs into 120 V outlet, charges standard batteries. Net Each..................... **$10.75**

Wahl No. 7595 Protective Carrier—Sturdy, clear plastic tube with locking cap. Net Each........................... **$1.05**

Wahl No. 7575 Blister Pack Kit—Contains wall-plug transformer, No. 7550 Iso-Tip iron with standard batteries, No. 7545 Fine Tip. Net Each.. **$27.50**

Wahl No. 7500 Kit—Contains No. 7550 Iso-Tip iron with standard batteries, No. 7578 Charging Stand, No. 7545 Fine Tip. Net Each.. **$30.75**

Wahl No. 7565 Kit—Contains No. 7550 Iso-Tip iron with standard batteries, No. 7545 Fine Tip, No. 7585 Auto Charging Cord, No. 7595 Protective Carrier. Plugs into cigar lighter socket in service truck between calls. Net Each..................... **$28.70**

Wahl No. 7585 Auto Charger—Cord with plug to fit vehicle cigar lighter socket. Packed in No. 7595 Protective Carrier. Net Each.. **$7.25**

Wahl No. 7700 Quick Charge Kit—Contains No. 7550 Iso-Tip iron with Quick Charge premium batteries, No. 7728 Quick Charge Stand, No. 7545 Fine Tip, No. 7546 Heavy Tip. Recharges in 3 to 4.5 hours. Net Each.......................... **$35.00**

Wahl No. 7728 Quick Charge Stand—Plugs into 120 V outlet, charges premium batteries. Net Each................ **$11.00**

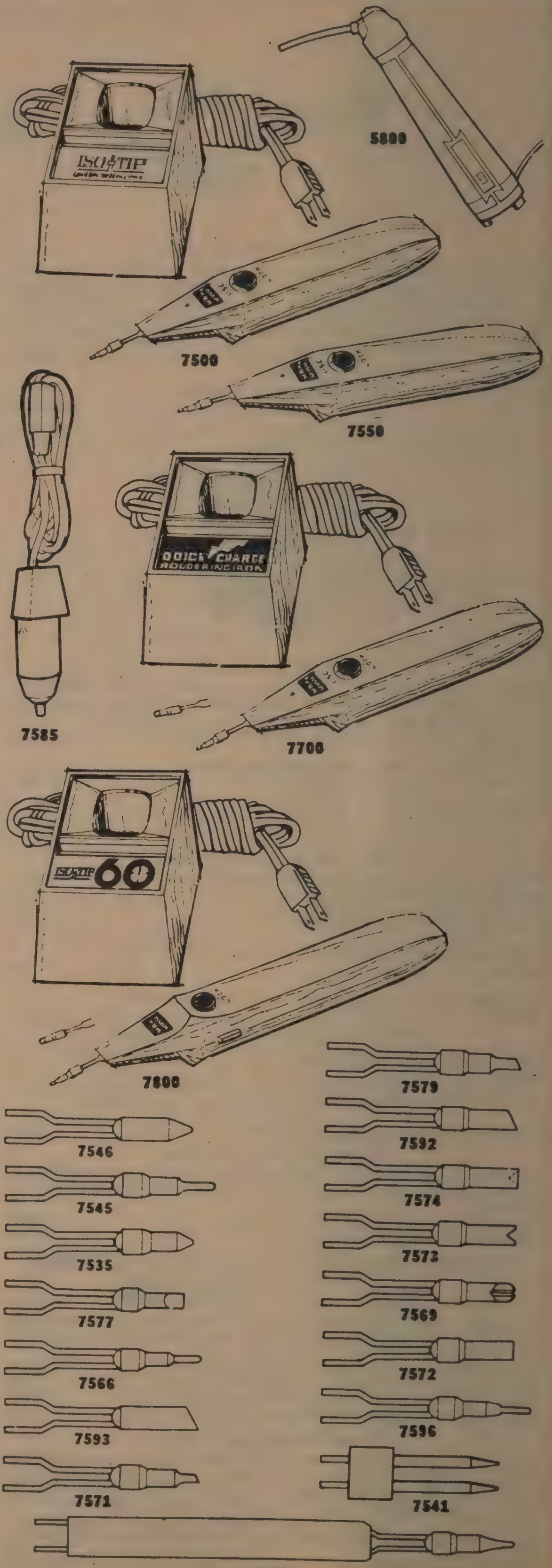
Wahl No. 0040 Quick Charge Batteries—Two cells assembled. Net Each.. **$10.50**

Wahl No. 7800 Kit—Fastest charging iron available. Recharges fully in one hour; enough for reuse in a few minutes. Allows 20% continuous use when kept in charger between uses. Kit contains iron, No. 7828 recharging stand, No. 7545 tip, No. 7577 tip and nstructions. Net Each.......................... **$47.75**

THERMAL-SPOT TESTER

Many service problems are caused by heat build-up. The Thermal-Spot Tester eliminates wasteful time spent waiting for the equipment to heat up. It provides a concentrated stream of hot air to heat suspected components quickly and individually. Resistors, capacitors, transistors, or any other components can be brought up to operating temperature in a hurry. Can also be used to heat-shrink insulating tubing, to dry cements, and to dry tuners after spray cleaning. Small, compact, lightweight, 1 lb. 8 oz.

Wahl No. 5800 Thermal-Spot Tester—Net Each...... **$44.15**



ISO-TIP®

WAHL CLIPPER CORPORATION
ORIGINATORS OF PRACTICAL CORDLESS SOLDERING

cordless soldering iron

ORYX MINIATURE SOLDERING IRONS

A selection of lightweight miniature soldering irons for precision work on delicate, miniaturized, and heat-sensitive components. All models are the same miniature size (6″) except Wahl No. 7225 (4 3/4″). The differences between the models are in the tip supplied and the operating voltages and wattages. Heat ranges from 575° F to 850° F are available.

Wahl No. 7225 (Oryx Model 5-4.5)—Microcircuit model for joints of negligible mass. 5 watts, 4 1/2 Volts, 575° F, 1/16″ S type tip (#7255). 4 3/4″ long, 1/5 oz. Net Each **$19.95**

Wahl No. 7206 (Oryx No. 5-6)—Same as above, except 6 Volts, 750° F, 1/16″ P type tip (#7254). 6″ long, 1/4 oz. Net Each **$19.95**

Wahl No. 7240 (Oryx Model 6A-6)—Printed circuit model for diodes, 1/4- and 1/2-watt resistors, transistors, etc. 6 watts, 6 Volts, 690° F, 3/32″ B type tip (#7253). 6″ long, 1/4 oz. Net Each **$19.95**

Wahl No. 7238 (Oryx Model 6A-12)—Same as above, except 12 Volts. Net Each **$19.95**

Wahl No. 7209 (Oryx Model 9-6)—Same as 7240, except 9 watts, 6 Volts, 750° F, 3/32″ A type tip (#7252). Net Each .. **$19.95**

Wahl No. 7220 (Oryx Model 9-12)—Same as 7240, except 9 watts, 12 Volts, 750° F, 3/32″ A type tip (#7252). Net Each **$19.95**

Wahl No. 7222 (Oryx Model 9-24)—Same as 7240, except 9 watts, 24 Volts, 750° F, 3/32″ A type tip (#7252). Net Each **$19.95**

Wahl No. 7211 (Oryx Model 11-6)—High-temperature model for special solder alloys. 11 watts, 6 Volts, 835° F, 3/32″ E type tip (#7273). 6″ long, 1/4 oz. Net Each **$24.95**

Wahl No. 7212 (Oryx Model 12-6)—Heavy-duty model for tube socket terminals, lugs, and 1- and 2-watt resistors. 12 watts, 6 Volts, 700° F, 3/16″ C type tip (#7271). 6″ long, 1/4 oz. Net Each **$19.95**

Wahl No. 7221 (Oryx Model 12-12)—Same as 7212, except 12 Volts. Net Each **$19.95**

Wahl No. 7223 (Oryx Model 12-24)—Same as 7212, except 24 Volts. Net Each **$19.95**

Wahl No. 7218 (Oryx Model 18-6)—Same as 7212, except 18 watts, 6 Volts 800° F, 3/32″ F type tip (#7274). 6″ long, 1/2 oz. Net Each **$24.95**

Wahl No. 7226 (Oryx Model 18-12)—Same as 7212, except 18 watts, 12 Volts, 800° F, 3/32″ F type tip (#7274). 6″ long, 1/2 oz. Net Each **$24.95**

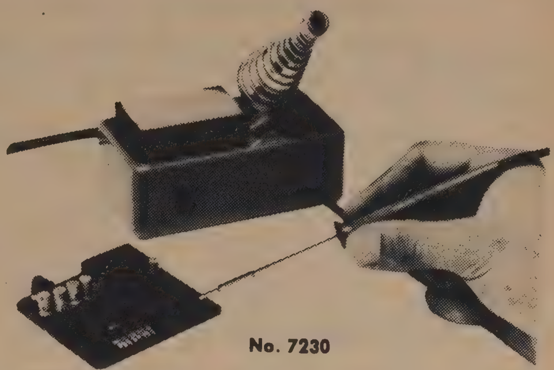
Wahl No. 7224 (Oryx Model 18-24)—Same as 7212, except 18 watts, 24 Volts, 800° F, 3/32″ F type tip (#7274). 6″ long, 1/2 oz. Net Each **$24.95**

Wahl No. 7227 (Oryx Model 25-12)—Same as 7212, except 25 watts, 12 Volts, 850° F, 3/32″ G type tip (#7276). 6″ long, 1/2 oz. Net Each **$24.95**

Wahl No. 7230 (Oryx Model PSU-6V)—Low wattage soldering station includes double-insulated transformer, internal fuse, indicator lamp, holder spring, cleaning sponge, and Model 7240 miniature iron. Net Each **$39.95**

Wahl No. 7285 (Oryx Model 7285)—Miniature iron safety stand with cleaning sponge. Net Each **$12.25**

Wahl No. 7216 (Oryx Model 54204T)—Tapped transformer for exact temperature control of all Oryx 6-Volt irons. Outputs from 4.5 to 6 Volts in 1/2-Volt steps. Plugs into 117 VAC receptacle. Iron-holding clips on top. Net Each **$27.00**



No. 7230

No. 7216

No. 7285

ORYX MINIATURE SOLDERING IRON TIPS

Tip installation is easy—no tools needed. Pull the old (cooled) tip off and slide on a new one. The tips listed below are interchangeable and can be used with the following miniature irons: Wahl Nos. 7206, 7225, 7240, 7238, 7209, 7220, 7222, 7221, 7212, 7221, and 7224.

Wahl No.	Oryx Type	Fig.	Tip Diameter	Composition	Net Each
7262	A	1	3/32″	Iron-plated copper	$ 3.75
7263	B	1	3/32″	Iron-plated copper	3.75
7264	P	1	1/16″	Iron-plated copper	3.75
7265	S	1	1/16″	Iron-plated copper	3.75
7277	T	1	1/25″	Gold end, copper body	10.90
7267	V-PL	2	3/32″	Iron-plated copper	3.75
7278	W	2	3/32″	Solid copper (NASA)	3.75
7266	X-PL	3	1/25″	Iron-plated copper	3.75
7268	Z-PL	1	1/25″	Iron-plated copper	3.75
7252	A	1	3/32″	Nickel-plated copper	2.25
7253	B	1	3/32″	Nickel-plated copper	2.25
7259	B	1	3/32″	Solid nickel	3.75
7271	C	1	3/16″	Nickel-plated copper	2.25
7272	D	2	3/32″	Solid nickel	3.75
7273	E	4	3/32″	Solid nickel	3.75
7254	P	1	1/16″	Nickel-plated copper	2.25
7255	S	1	1/16″	Nickel-plated copper	2.25
7257	V	2	3/32″	Nickel-plated copper	2.25
7258	Z	1	1/25″	Nickel-plated copper	2.25
7256	X	4	1/25″	Nickel-plated copper	2.25

Tips listed below are interchangeable and can be used with the following miniature irons: Wahl Nos. 7218, 7226, 7224, and 7227.

Wahl No.	Oryx Type	Fig.	Tip Diameter	Composition	Net Each
7274	F	1	3/16″	Nickel-plated copper	3.75
7275	F-1	1	1/8″	Nickel-plated copper	3.75
7276	G	1	3/32″	Solid nickel	3.75

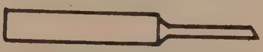


Fig. 1

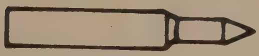


Fig. 2

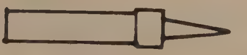


Fig. 3

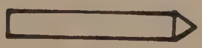


Fig. 4

Weller® Professional Tools

WELLER SOLDERING GUNS, KITS

MODEL 8200 DUAL HEAT SOLDERING GUN

Two trigger positions provide instant switching to high (140 watts) or low (100 watts) heat. Tip heats instantly and spotlight comes on when trigger is pulled. UL Listed. Available with 2-wire (Model 8200) or 3-wire (Model 8200-3) cord.

MODEL 8200PK DUAL HEAT SOLDERING GUN KIT

Includes Weller dual heat 100/140 watt gun, rugged plastic utility case, three soldering tips, tip-changing wrench, flux brush, soldering aid and solder.

SERIES "D" DUAL-HEAT PROFESSIONAL GUNS

Exclusive dual-heat feature saves time, adds convenience, and greatly increases tip life. Triggermatic control switches instantly to high or low heat as the job requires. Tip life is increased by using high heat only when necessary. No wasted time or current. Twin spotlights eliminate shadows on work. Carefully engineered design provides long reach; handles difficult jobs with ease; slips between wiring without damage to insulation. Exclusive tip grip assures full constant heat; wiping action of tip-fastened nut eliminates contact resistance and oxidation. Rated 200/260 watts. UL listed. Available with 2-wire (Model D550) or 3-wire (Model D550-3) cord.

MODEL D550PK HEAVY-DUTY DUAL HEAT SOLDERING GUN KIT

Features 240/325 watt dual heat gun, break-proof plastic carrying case, soldering, smoothing and cutting tips, tip-changing wrench and solder.

SOLDERING GUN AND KITS—DEALER NET PRICES

Weller No.	Rating, Watts	Net Each, Lots of 1-11	12-47	48-Up	Weller No.	Rating, Watts	Net Each, Lots of 1-11	12-47	48-Up
8200	100/140	$21.96	$19.73	$17.49	D550	200/260	$29.86	$26.82	$23.78
8200-3	100/140	24.37	21.89	19.40	D550-3	200/260	32.33	29.04	25.75
8200 PK	100/140	25.60	23.00	20.39	D550 PK	200/260	34.74	31.20	27.66

SOLDERING GUN REPLACEMENT TIPS

Weller No.	For Gun or Iron No.	Tip Type	Net Each	Weller No.	For Gun or Iron No.	Tip Type	Net Each
8125*	8100B, 8200	Solder	$2.17	7135N†	8100, 8100B, 8200, D-440	Solder	$2.17
8125N‡	8100B, 8200	Solder	2.17	6120†	8100B, 8200, D-440	Smoothing	2.17
7250	8250A, D-550	Solder	2.17	6110†	8100B, 8200, D-440	Cutting	2.17
7250N†	8250A, D-550	Solder	2.17	6130†	8250A, D-550	Cutting	2.17
7135	8100, D-440, 8100B, 8200	Solder	2.17	6140†§	WS-200, WD-250, S-500, D-550	Smoothing	2.17

*Premium plated tip; all others copper. †With tip nuts. ‡Premium plated; with tip nuts. §Net Each.

TEMPMATIC TEMPERATURE CONTROLLED SOLDERING TOOLS

Fast and reliable. Easy to handle, weighs 7 oz. Features quick change powerhead. Comes with 3/16" chisel point, 700° F powerhead. 120 VAC.

Weller No. GT7A—Net Each, Lots of 1–11 .... $33.07
Net Each, Lots of 12–47 .... $29.70; 48 Up 26.33
Weller No. GT6B—Same, but with 1/8" conical point, 600° F powerhead.
Net Each, Lots of 1–11 .... $33.07; 12–47 .... $29.70; 48 Up 26.33
Weller No. 6B—Powerhead only, 1/8" conical point, 600° F. Net Each 20.94
Weller No. 7A—Powerhead only, 3/16" chisel point, 700° F. Net Each 20.94
Weller No. GT—Handle only, with trigger and cord. Net Each 12.12

PROFESSIONAL SOLDERING IRONS

Extremely rugged, service grade tools. Stainless steel barrels, long life industrial grade double coated tips. Cool blue pencil handle of impact resistant plastic. Only 1¾ oz., 8" long. 120 volts. UL Listed.

Weller No. WP25 Soldering Iron—25 watts, with 1/16" screwdriver tip.
Net Each, Lots 1–11 ..... $17.03; 12–47 .... $15.30; 48 Up $13.57
Weller No. WP40 Soldering Iron—40 watts, with 1/8" screwdriver tip.
Net Each, Lots 1–11 .... $20.93; 12–47 .... $18.80; 48 Up $16.66

REPLACEMENT TIPS FOR WP25 AND WP40

Weller No.	Tip Description	Net Each, Lots 1-11	12-47	48 Up	Weller No.	Tip Description	Net Each, Lots 1-11	12-47	48 Up
ST1	1/16" screwdriver	$2.72	$2.45	$2.17	ST5	1/32" single flat	$2.72	$2.45	$2.17
ST2	3/32" screwdriver	2.72	2.45	2.17	ST6	1/32" screwdriver	2.72	2.45	2.17
ST3	1/8" screwdriver	2.72	2.45	2.17	ST7	1/32" conical	2.72	2.45	2.17
ST4	3/16" screwdriver	2.72	2.45	2.17	ST8	1/16" screwdriver	2.72	2.45	2.17

PROFESSIONAL DESOLDERING/RESOLDERING TOOL

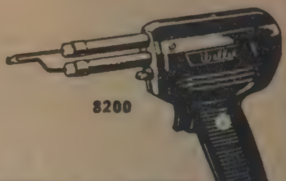
A must for servicing modern printed circuit boards and solid state equipment. Complete with .063" opening tip. 120 volts; rated 40 watts. Two-wire cord.

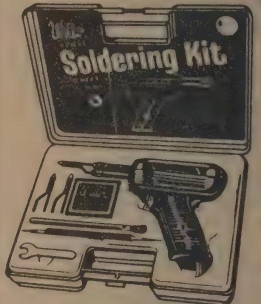
Weller No. DS40 Desoldering/Resoldering Tool—Net Each, Lots of 1–11 .... $38.31
Net Each, Lots of 12–47 .... $34.41; 48 Up 30.51

REPLACEMENT DESOLDERING TIPS FOR DS40

Weller No.	Hole Dia., In.	Net Each, Lots of 1-11	12-47	48 Up	Weller No.	Hole Dia., In.	Net Each, Lots of 1-11	12-47	48 Up
DST1	.038	$2.67	$2.40	$2.13	DST4	.063	$2.67	$2.40	$2.13
DST2	.046	2.67	2.40	2.13	DST5	.078	2.67	2.40	2.13
DST3	.059	2.67	2.40	2.13	DST6	.090	2.67	2.40	2.13

WELLER SOLDERING IRONS ARE AVAILABLE WITH 3-WIRE CORDS.
WRITE FOR PRICES.


8200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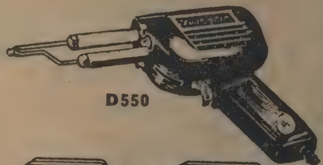
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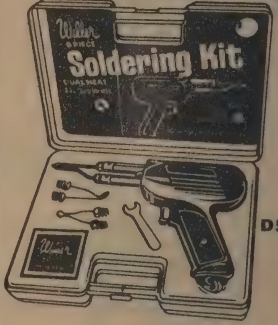
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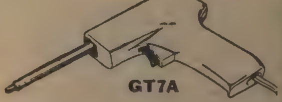
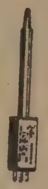
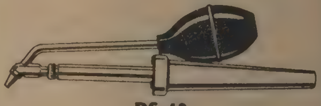
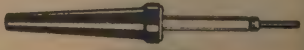

GT7A


6B


DS-40


WP25, WP40

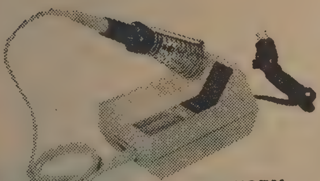
Weller® Professional Tools

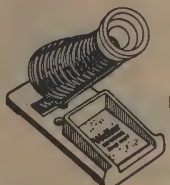
SP-23

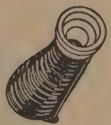
SP-40

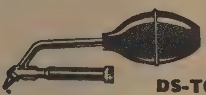
SP-80

SP-120, SP-175


W-TCPN


Bench Stand


Side Rail Stand


DS-TCP

SOLDERING TOOL STANDS

Weller No. PH60—Bench type with base and sponge for W60, WP25, WP40, and irons with barrel dia. up to 15⁄32″.
Weller No. PH100—Bench type with sponge for W100 and irons with barrel diameter up to 19⁄32″.
Weller No. SFA1—Side rail type for TCP1 and irons with barrel dia. up to ⅜″.
Weller No. SFA60—Side rail type for W60 and irons with barrel dia. up to 15⁄32″.
Weller No. SFA100—Side rail type for W100 and irons with barrel dia. up to 19⁄32″.

PRICE TABLE

Weller No.	Net Each, Lots of		
	1-11	12-47	48 Up
PH60	$10.14	$ 9.11	$ 8.07
PH100	11.39	10.23	9.07
SFA60	3.84	3.45	3.06
SFA100	6.45	5.79	5.13

INDUSTRIAL DESOLDERING ADAPTERS

Weller No. DS-TCP—For use with WTCP and WTCP-L. Net Ea., Lots 1-11. **$17.28**
12-47.... **$15.53**; 48 Up.... **13.77**
Weller No. DS60—For use with W60. Net Each, Lots of 1-11........ **$17.28**
12-47 ... **$15.53**; 48 Up.... **13.77**

"MARKSMAN" SOLDERING IRONS

High efficiency irons with stainless steel barrels; heat and impact resistant handles. For 120 V. Complete with replaceable copper plated tip and instruction booklet packed in a vinyl pouch. UL Recognized.

Weller No.	Watts	Type	Tip	Overall Length	Wt., Oz.	Net Each, Lots of		
						1-11	12-47	48 Up
SP-23	25	Pencil	MT-1 cone	8¼″	1¾	$ 8.67	$ 7.79	$ 6.90
SP-40	40	Pencil	MT-10, ¼″ dia.	8¼″	2	11.52	10.35	9.18
SP-80	80	Med. duty	MT-20, ⅜″ dia.	9⅜″	4	17.32	15.56	13.79
SP-120	120	Med. duty	MT-30, ½″ dia.	11⅜″	10	24.55	22.05	19.55
SP-175	175	Hvy. duty	MT-40, ⅝″ dia.	12½″	16	29.93	26.88	23.83
SP-23K	With SP-23 iron, 3 tips, 5′ rosin core solder and aid tool with instructions					12.14	10.91	9.67

PLATED REPLACEMENT TIPS FOR "MARKSMAN" IRONS

Pkg. of 2 tips, except MT-20 to MT-40, pkg. of 1.

Weller No.	For Marksman Iron	Tip Type	Net Pkg. of 2, Lots of		
			1-11	12-47	48 Up
MT-1	SP-23	Cone shape	$1.90	$1.71	$1.52
MT-2	SP-23	Screwdriver	1.90	1.71	1.52
MT-3	SP-23	Chisel	1.90	1.71	1.52
MT-5	SP-23	Woodburning	1.90	1.71	1.52
MT-6	SP-23	Smoothing	1.90	1.71	1.52
MT-10	SP-40	¼″ chisel	3.49	3.14	2.78
MT-20	SP-80	⅜″ chisel*	3.49	3.14	2.78
MTG-30	SP-120	½″ chisel*	4.99	4.49	3.98
MTG-40	SP-175	⅝″ chisel*	8.53	7.67	6.80

*Price indicated is for single tip.

CONTROLLED OUTPUT SOLDERING PENCILS AND TIPS

MODEL W-TCPN LOW VOLTAGE PENCIL

Precision built transformer powered soldering station. Features low voltage, temperature controlled soldering pencil. Choice of interchangeable tips in temperature selections of 600° F, 700° F and 800° F. Includes soldering pencil, power unit, cord set and handle, iron holder, sponge tray, switch and light, and heating element. **Replacement tips available:** Ranging from 1⁄32″ to 15⁄64″ dia., in screwdriver, long screwdriver, narrow screwdriver, conical and single flat shapes, each in temperatures of 600° F, 700° F and 800° F. Weight per carton, 21 lbs.

Weller No. W-TCPN—
Net Each, Lots of 1-11...... **$90.28**; 12-47...... **$81.09**; 48 Up...... **$71.90**

REPLACEMENT TIPS FOR W-TCPN, W-TCP-L, TCP-1, TCP12

Tip Description	Weller Number			Net Each, Lots of		
	600° F	700° F	800° F	1-11	12-47	48 Up
1⁄16″ screwdriver	PTA6	PTA7	PTA8	$3.07	$2.76	$2.45
1⁄16″ single flat	PTAA6	PTAA7	PTAA8	3.07	2.76	2.45
3⁄32″ screwdriver	PTB6	PTB7	PTB8	3.07	2.76	2.45
3⁄32″ single flat	PTBB6	PTBB7	PTBB8	3.07	2.76	2.45
⅛″ screwdriver	PTC6	PTC7	PTC8	3.07	2.76	2.45
⅛″ single flat	PTCC6	PTCC7	PTCC8	3.07	2.76	2.45
3⁄16″ screwdriver	PTD6	PTD7	PTD8	3.07	2.76	2.45
3⁄16″ single flat	PTDD6	PTDD7	PTDD8	3.07	2.76	2.45
1⁄32″ screwdriver	PTH6	PTH7	PTH8	3.07	2.76	2.45
1⁄32″ conical	PTP6	PTP7	PTP8	3.07	2.76	2.45
1⁄32″ single flat	PTF6	PTF7	PTF8	3.07	2.76	2.45
15⁄64″ screwdriver	PTE6	PTE7	PTE8	3.07	2.76	2.45
3⁄64″ long screwdriver	PTK6	PTK7	PTK8	3.07	2.76	2.45
5⁄64″ long screwdriver	PTL6	PTL7	PTL8	3.07	2.76	2.45
⅛″ long screwdriver	PTM6	PTM7	PTM8	3.07	2.76	2.45
1⁄32″ long conical	PTO6	PTO7	PTO8	3.07	2.76	2.45
1⁄16″ narrow screwdriver	PTR6	PTR7	PTR8	3.07	2.76	2.45

REPLACEMENT PARTS AND ACCESSORIES FOR MODEL WTCPN

Weller No.	Description	Net Each
TC201	Soldering pencil with PTA7 tip	$43.69
TC202	Power unit with sponge, iron holder and tip tray	60.20
TC203	Cord set with handle	11.09
TC204	Iron holder with funnel	2.86
TC205	Sponge	1.25
TC206	Tip tray	1.49
TC207	Switch/light assembly for power unit	7.43
TC208	Heater element for soldering pencil	11.09
SW60	Switch assembly for soldering pencil	12.34
BA60	Barrel nut assembly for soldering pencil	3.66

AC/DC FIELD SERVICE SOLDERING PENCIL

Field service soldering pencil operates from AC or DC. Two models available. **Ratings: Model TCP-12**—12-14 volts AC/DC, 2.5-2.9 amps, 30-41 watts; **Model TCP-24**—24-28 volts AC/DC, 1.7-2.0 amps, 41-56 watts. Units come complete with #PTD7 700° F, 3⁄16″ screwdriver tip and 12-ft. power cord with battery clips.

Weller No.	Net Each, Lots of			Weller No.	Net Each, Lots of		
	1-11	12-47	48 Up		1-11	12-47	48 Up
TCP-12	$47.23	$42.42	$37.61	TCP-24	$47.23	$42.42	$37.61

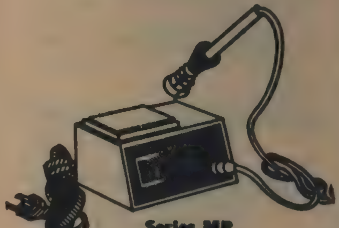
CONTINUED ON NEXT PAGE

Weller® Professional Tools

(Continued from previous page)

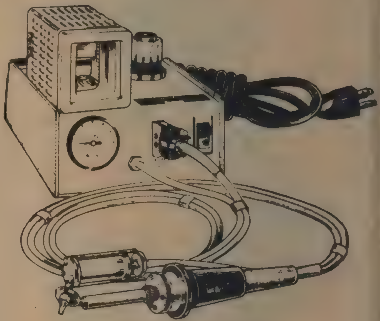
REPLACEMENT PARTS FOR MODELS WTCPN, WTCPL, TCP-12 AND TCP-24

Weller No.	Description	Net Each
TCP-1	Replacement soldering pencil with PTA7 tip for WTCPL	**$41.85**
SW60	Switch assembly for TCP-1 and TCP-12	**12.34**
HE60	Heating element	**11.09**
CS100HB	Cord set, silicone, with handle	**10.42**
BA60	Barrel nut assembly for TCP-1 and TCP-12	**3.66**
FP1	Fuse for PU1, PU1A, PU2 and WTCP2	**2.52**
LN2	Lamp assembly for WTCPL and PU2	**3.66**
PUS	Switch for PU2	**3.66**


Series MP

TEMPERATURE-CONTROLLED DESOLDERING STATION

Stainless steel lined desoldering tips draw molten solder into see-through collecting tube which is easily cleaned and replaced. Collector tube filter prevents solder from entering and clogging vacuum tube. Vacuum is created by conversion of air pressure through a special transducer; vacuum adjustable from 5″ to 20″ Hg. A foot switch turns vacuum on and off. Cabinet-mounted gauge shows vacuum level. Station is designed to use factory air. Lighted on-off power switch. Quick-connect locking plug prevents accidental loss of power. Available in 700° F and 800° F versions. **Weller No. DS500—Net Each $436.04**


DS500

SERIES MP MINIATURE SOLDERING STATION

Designed for PC electronics, and for fast and economical production soldering. Closed loop temperature control system with low voltage output. Non-burnable cord; replaceable tips in wide range of configuration. New plug-in pencil for maximum flexibility and reduced maintenance cost.

Weller No.	Description	Qty./Box	Net Each, Lots of 1-11	12-47	48 Up
MP126	650° F soldering pencil	1	**$39.30**	**$35.30**	**$31.29**
MP127	750° F soldering pencil	1	**39.30**	**35.30**	**31.29**
MP201	Transformer with terminals	1	**36.61**	**32.88**	**29.15**
MP202	Sponge	10	**1.49**	**1.34**	**1.18**
MP213	Funnel	1	**1.49**	**1.34**	**1.18**
MP210	Barrel nut assembly	1	**3.66**	**3.29**	**2.91**
MP303	Iron receptacle 10/contr circ	1	**11.09**	**9.96**	**8.83**

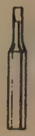
REPLACEMENT TIPS FOR SERIES MP AND SERIES W-MCP

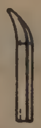
Weller No.	Reach, Inches	Description	Net Each, Lots of 1-11	12-47	48 Up
MP131	1/64″	Conical	**$2.97**	**$2.67**	**$2.37**
MP132	1/32″	Bent Conical	**2.97**	**2.67**	**2.37**
MP133	1/32″	Single Flat 45°	**2.97**	**2.67**	**2.37**
MP134	3/64″	Bent Conical	**2.97**	**2.67**	**2.37**
MP135	3/64″	Single Flat 45°	**2.97**	**2.67**	**2.37**
MP136	1/16″	Narrow Screwdriver	**2.97**	**2.67**	**2.37**
MP137	5/64″	Screwdriver	**2.97**	**2.67**	**2.37**
MP138	8/64″	Chisel	**2.97**	**2.67**	**2.37**

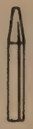
CONTROLLED OUTPUT INDUSTRIAL SOLDERING IRONS

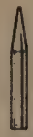
Sensing device at tip assures reliable soldering; won't overheat; maintains selected maximum temperature. Two-wire cord. With 700° F tips. "Temperature Sensing" tips are available in standard industrial configurations at 600°, 700° and 800° F; see listings below. Models W60 and W100 have new blue color.

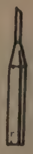
Weller No.	Watts	Type	Tip	Overall Length	Wt., Oz.	Net Each, Lots of 1-11	12-47	48 Up
W60	60	Pencil	1/4″ screwdriver	7 1/4″	2 1/2	**$32.53**	**$29.22**	**$25.91**
W100	100	Pencil	3/8″ screwdriver	8 1/4″	3 1/2	**38.41**	**34.50**	**30.59**


SCREWDRIVER


BENT CONICAL


CONICAL


MICRO POINT


SPADE

PREMIUM PLATED REPLACEMENT TIPS FOR W60 SOLDERING IRON

For Model W60 blue series tools only.

Point Size	Description	Reach	Weller Number 600° F	700° F	800° F	Net Each, Lots of 1-11	12-47	48 Up
1/16″	Screwdriver	1 5/32″	**CT5A6**	**CT5A7**	**CT5A8**	**$3.44**	**$3.09**	**$2.74**
3/32″	Screwdriver	1 5/32″	**CT5B6**	**CT5B7**	**CT5B8**	**3.44**	**3.09**	**2.74**
1/8″	Screwdriver	1 5/32″	**CT5C6**	**CT5C7**	**CT5C8**	**3.44**	**3.09**	**2.74**
3/16″	Screwdriver	1 5/32″	**CT5D6**	**CT5D7**	**CT5D8**	**3.44**	**3.09**	**2.74**
1/4″	Screwdriver	1 5/32″	**CT5E6**	**CT5E7**	**CT5E8**	**3.44**	**3.09**	**2.74**

PREMIUM PLATED REPLACEMENT TIPS FOR W100 SOLDERING IRON

For Model W100 blue series tools only.

Point Size	Description	Reach	Weller Number 600° F	700° F	800° F	Net Each, Lots of 1-11	12-47	48 Up
1/8″	Screwdriver	1 5/32″	**CT6C6**	**CT6C7**	**CT6C8**	**$4.93**	**$4.43**	**$3.92**
3/16″	Screwdriver	1 5/32″	**CT6D6**	**CT6D7**	**CT6D8**	**4.93**	**4.43**	**3.92**
1/4″	Screwdriver	1 5/32″	**CT6E6**	**CT6E7**	**CT6E8**	**4.93**	**4.43**	**3.92**
3/8″	Screwdriver	1 5/32″	**CT6F6**	**CT6F7**	**CT6F8**	**4.93**	**4.43**	**3.92**

W-60

W-100

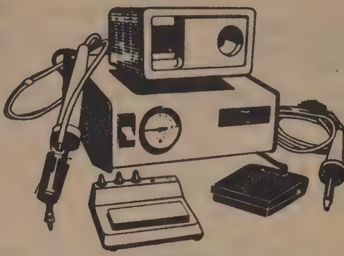
CONTINUED ON NEXT PAGE

Weller® Professional Tools

(Continued from previous page)

REPLACEMENT AND REPAIR PARTS FOR MODELS W60, W100 AND W200

Weller No.	Description	Net Each
CS4HB	Cord set (3-wire), strain relief and handle assembly for W60 and W100	$10.89
HEW60	Heating element for W60	14.75
HEW100	Heating element for W100	17.28
SW60	Switch assembly for W60	12.34
SW100	Switch assembly for W100	12.34
KN60	Knurled tip nut (use only with "5" series tips) for W60, TC552 (3/16″ hole)	1.25
KN60A	Knurled tip nut (use only with "CT5" series tips) for W60 (¼″ hole)	1.25
KN100A	Knurled tip nut (use only with "CT6" series tips) for W100 (⅜″ hole)	1.25



DS100

DS110

DS115

Weller MINI-SHOP KIT

601K

DESOLDER AND SOLDER STATION

Power vacuum desoldering station designed for PC board repair. Closed loop temperature control protects sensitive components. See-thru solder is easy to clean or replace. Nonburnable cord for safety and long life. High impact resistant tool handles and stainless steel barrels. Operates from factory air and line voltage. Complete with foot switch, indicating light/on-off switch, twin safety tool holder, vacuum adjustment and gauge, tip and sponge holder, five assorted tips and instruction manual. Beige with blue tool handles.

Weller No.	Description	Net Each
DS100	Desolder and solder station; 1 per box	$740.18
DS101	Soldering iron; 1 per box	47.44
DS102	Desoldering iron; 1 per box	71.28
DS103	Collector tube; 5 per box	4.36
DS104	Clean out tool; 5 per box	4.36
DS105	Sponge holder with sponge and tool; 1 per box	14.75
DS106	Sponge; 10 per box	2.86
DS107	Tool holder; 1 per box	57.10
DS201	Fuses; 5 per card	1.25
DS202	Installation kit; 1 per box	41.18
SW60	Switch assembly; 1 per box	12.34
HE60	Heating element; 1 per box	11.09
BA60	Barrel nut assembly; 1 per box	3.66
DS204	Filter sponge; 10 per box	.80
DS217		36.94
DS218		36.94

REPLACEMENT TIPS FOR SOLDER AND DESOLDER STATION

Weller No.	Size*, Inches	Net Each	Weller No.	Size*, Inches	Net Each
DS110	.060 x .025 x .50	6.76	DS114	.125 x .071 x .50	$6.76
DS111	.090 x .025 x .50	6.76	DS115	.060 x .025 x .75	6.76
DS112	.076 x .036 x .50	6.76	DS116	.098 x .045 x .75	6.76
DS113	.098 x .045 x .50	6.76	DS117	.090 x .025 x .75	6.76

*O.D. x I.D. x Length; all tips packed 5 per card.

MINI-SHOP KIT

Mini-Shop kit contains 46 pieces: Mini-Shop power unit, 3 adapter collets, storage case, owner's manual, 7 grinding/sharpening wheels and points, 3 cleaning brushes, 6 cut-off wheels, 2 routing bits, 2 polishing wheels, 12 abrasive discs, 3 abrasive bands, 1 expanding drum, 1 drill bit, 1 mandrel, 1 chuck wrench and 1 dressing stone. Weight per carton, 8½ lbs.

Weller Mini-Shop Kit Number 601K—Net Each, Lots of 1–11.............. **$54.91**
Net Each, Lots of 12–47................ **$49.32**; 48 Up................. **43.73**

MINI-SHOP ACCESSORIES

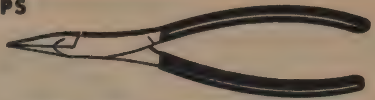
Weller No.	Description	Net Each
MS201	Bristle brush, cup	$1.19
MS202	Bristle brush, disc	1.19
MS203	Wire brush	1.19
MS204	Abrasive band, 50 grit; 6/pack	1.19
MS205	Abrasive band, 120 grit; 6/pack	1.19
MS206	Sanding disc. 80 grit; 12/pack	1.19
MS207	Sanding disc, 120 grit; 12/pack	1.19
MS208	Felt polishing wheel; 6/pack	1.19
MS209	Abrasive rubber wheel; 2/pack	1.19
MS210	Cut-off wheel; 3/pack	1.19
MS211	Expanding drum	1.19
MS212	Mandrel	1.19
MS213	Ball cutter, ¼″ dia.	3.76
MS214	Cylinder cutter, ¼″ dia.	3.76
MS215	Adapter collet, 1/32″	1.19

Weller No.	Description	Net Each
MS216	Adapter collet, 1/16″	$1.19
MS217	Adapter collet, 3/32″	1.19
MS218	Adapter collet, ⅛″	1.19
MS219	Grinding wheel, ¼″ x ½″	1.19
MS220	Grinding wheel, ½″ x ⅜″	1.19
MS221	Grinding wheel, ¾″ x ⅜″	1.19
MS222	Grinding wheel, ⅛″ x ¾″, silicon	1.19
MS223	Grinding point, ¼″ x ⅝″	1.19
MS224	Grinding point, ⅜″ x ¾″	1.19
MS225	Grinding point, ½″ x 3/32″	1.19
MS226	Dressing stone	1.19
MS227	Drill bit, ⅛″	1.19
MS229	Goggles	4.54
MS231	Replacement motor brushes, 2/pack	3.76

XCELITE® Professional Hand Tools

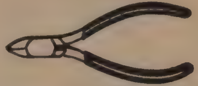
PLIERS AND SNIPS

CHAIN NOSE ELECTRICIAN'S PLIERS



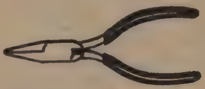
Xcelite No. 59CG—8″ pliers with long reach and high leverage. Rugged construction............................**$11.12 ea.**

DIAGONAL PLIERS



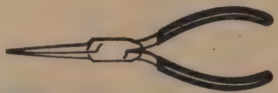
Xcelite No. 64CG—4″ electronic diagonal pliers....**$11.37 ea.**
Xcelite No. 54CG—Midget 4″ size.................. **8.47 ea.**
Xcelite No. 55CG—5″ pliers for most cutting needs... **9.13 ea.**
Xcelite No. 66CG—6″ all-purpose.................. **9.60 ea.**
Xcelite No. 67CG—7″ heavy duty.................. **9.40 ea.**

LONG NOSE PLIERS



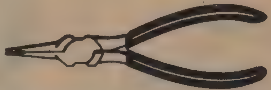
Xcelite No. 41CG—Midget 4″ without side cutters...**$8.23 ea.**
Xcelite No. 52CG—6½″ long nose, without side cutters. **7.62 ea.**
Xcelite No. 51CG—6½″ long nose, with side cutters.. **9.49 ea.**

NEEDLE NOSE PLIERS



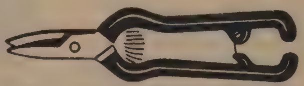
Xcelite No. 56CG—6″ size. Long slim jaws permit entry where regular long nose pliers won't work..............**$10.04 ea.**
Xcelite No. 57CG—5½″ pliers with fine serrated jaws and coil spring. For firm gripping and looping of wire........**$9.92 ea.**

RADIO AND TV PLIERS



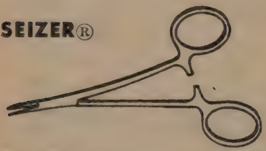
Xcelite No. 58CG—6″ pliers with extreme tip for gripping, sharp 5⁄16″ cutting edges 3⁄16″ back from tip..............**$11.62 ea.**
Xcelite No. 69CG—5″ fine pointed pliers with serrated tips for delicate work. Sharp 5⁄16″ fine cutting edges ⅛″ back from tips for fine wires..**$12.41 ea.**

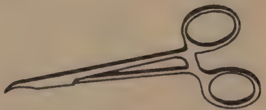
ELECTRONIC SNIPS



Designed to cut fine wire, filament and light sheet metal. Coil springs.
Xcelite No. 86CG—Pointed 1½″ blade............**$12.09 ea.**

SEIZER®

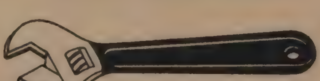




Versatile tools clamp wires for soldering, act as heat sinks.

Xcelite No.	Description	Ea.
42H	6″ Straight Nose Seizer	$12.91
43H	6″ Curved Nose Seizer	13.28
32H	5″ Straight Nose Jr. Seizer	12.49
33H	5″ Curved Nose Jr. Seizer	12.49

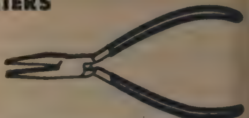
ADJUSTABLE WRENCHES



Xcelite No.	Length	Max. Opening	Ea.
44CG	4″	½″	$ 9.07
46CG	6″	¾″	9.17
48CG	8″	15⁄16″	10.39

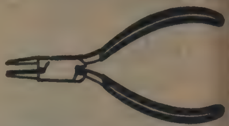
MINIATURE ELECTRONIC PLIERS

FLAT NOSE PLIERS



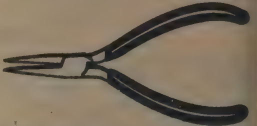
Xcelite No. 70CG—5″ long for fine work. No cutters...**$9.08 ea.**

ROUND NOSE PLIERS



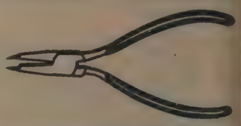
Xcelite No. 71CG—4½″ long. For looping and forming fine wires..**$9.35 ea.**

CHAIN NOSE PLIERS



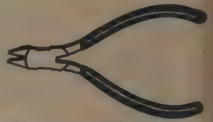
Xcelite No. 72CG—5″ long with thin chain nose......**$9.50 ea.**

SPECIAL TIP CUTTING PLIERS



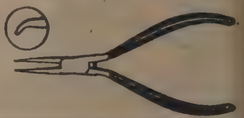
Xcelite No. 73CG—4½″ long. 45° oblique cutting tip.**$15.13 ea.**

DIAGONAL CLOSE AND FLUSH CUTTING PLIERS



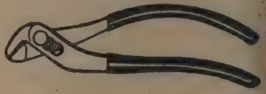
Xcelite No. 74CG—4″ long for fast, clean tip cutting. Fine tapered nose and near-flush cutting edges....................**$11.77 ea.**
Xcelite No. 84CG—4″ full flush cutting, thin tapered jaws and pointed nose..................................**$12.37 ea.**
Xcelite No. 95CG—5″ full flush cutting with pointed nose..**$11.71 ea.**

BENT THIN CHAIN NOSE PLIERS



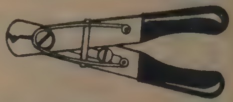
Xcelite No. 79CG—5″ long with fine serrated jaws, radius edges; 60° angle thin bent nose........................**$13.08 ea.**

ADJUSTABLE UTILITY PLIERS



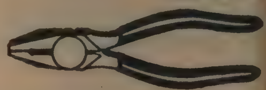
Xcelite No. 50CG—5″ slip joint ignition pliers.......**$7.62 ea.**
Xcelite No. 53CG—7″ utility plier.................. **6.96 ea.**
Xcelite No. 63CG—10″ utility plier................. **8.90 ea.**

WIRE, COAX STRIPPERS AND CUTTERS



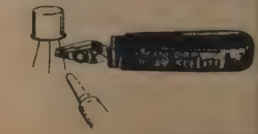
Xcelite No. 100-X—Adjustable screws top for different wire sizes, cushion grips. Cuts and strips both solid and stranded wire, cleanly and neatly. Hardened and ground blades.... **$3.56 ea.**
Xcelite No. 101-S—Same as No. 100 except with spring equipped self-opening handles..............................**$4.51 ea.**
Xcelite No. 103-S—Unique cam stop adjustment for different wire sizes.....................................**$5.54 ea.**

SIDE CUTTING PLIERS



Xcelite No. 60CG—6″ Electrician's...............**$ 9.72 ea.**
Xcelite No. 68CG—8″ Lineman's................. **12.09 ea.**

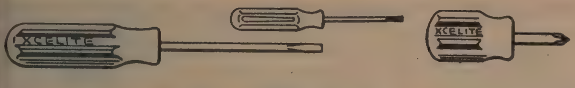
HEAT SINK



Xcelite No. 80—Heat Sink...........................**$3.84 ea.**

ALL PLIERS, SNIPS AND WRENCHES AVAILABLE WITH COMFORTABLE "CUSHION GRIP" (CG) HANDLES AS STANDARD

XCELITE® Professional Hand Tools



ROUND BLADE SCREWDRIVERS (For Slotted Screws)

Blades forged from tough AISI 6150 chrome vanadium steel. Shockproof, breakproof, amber plastic handles.

POCKET CLIP STYLE

Xcelite No.	Blade	Handle	Overall	1-11	12-47
R3322	3/32" x 2"	½" x 2¼"	4¼"	$1.09	$0.98
R3323	3/32" x 3"	½" x 2¼"	5¼"	1.22	1.10
R3324	3/32" x 4"	½" x 2¼"	6¼"	1.29	1.16
R181	⅛" x 2"	½" x 2¼"	4¼"	1.10	.99
R183	⅛" x 3"	½" x 2¼"	5¼"	1.29	1.16

REGULAR

Xcelite No.	Blade	Handle	Overall	1-11	12-47
R182	⅛" x 2"	⅞" x 2⅝"	4⅝"	$1.29	$1.16
R184	⅛" x 4"	⅞" x 2⅝"	6⅝"	1.74	1.56
R186	⅛" x 6"	⅞" x 2⅝"	8⅝"	1.89	1.70
R188	⅛" x 8"	⅞" x 2⅝"	10⅝"	2.04	1.83
R1810	⅛" x 10"	⅞" x 2⅝"	12⅝"	2.14	1.92
R5323	5/32" x 3"	⅞" x 2⅝"	5⅝"	1.59	1.43
R5324	5/32" x 4"	⅞" x 2⅝"	6⅝"	1.59	1.43
R5325	5/32" x 5"	⅞" x 2⅝"	7⅝"	1.74	1.56
R5328	5/32" x 8"	⅞" x 2⅝"	10⅝"	2.14	1.92
R3163	3/16" x 3"	1" x 3⅝"	6⅝"	2.20	1.98
R3164	3/16" x 4"	1" x 3⅝"	7⅝"	2.52	2.27
R3166	3/16" x 6"	1" x 3⅝"	9⅝"	2.74	2.46
R3168	3/16" x 8"	1" x 3⅝"	11⅝"	2.97	2.67
R144	¼" x 4"	1⅛" x 4⅛"	8⅛"	2.91	2.61
R146	¼" x 6"	1⅛" x 4⅛"	10⅛"	3.14	2.82
R148	¼" x 8"	1⅛" x 4⅛"	12⅛"	3.39	3.05
R1410	¼" x 10"	1⅛" x 4⅛"	14⅛"	3.57	3.21
R5164	5/16" x 4"	1¼" x 4¼"	8½"	3.32	2.99
R5166	5/16" x 6"	1¼" x 4¼"	10½"	3.57	3.21
R5168	5/16" x 8"	1¼" x 4¼"	12½"	3.79	3.41
R388	⅜" x 8"	1⅜" x 4½"	12½"	4.71	4.23

PHILLIPS TYPE SCREWDRIVERS

Chrome vanadium steel blades. Precision points. Shockproof, breakproof, amber plastic handles.

POCKET CLIP STYLE

Xcelite No.	Point	Blade	Handle	Overall	1-11	12-47
P12S	#0	⅛" x 2"	½" x 2¼"	4¼"	$1.42	$1.28

STUBBY STYLE

Xcelite No.	Point	Blade	Handle	Overall	1-11	12-47
SX101	#1	3/16" x 1 7/16"	1⅜" x 2"	3 7/16"	$2.30	$2.07
SX102	#2	¼" x 1 5/16"	1⅜" x 2"	3⅜"	2.62	2.36

REGULAR

Xcelite No.	Point	Blade	Handle	Overall	1-11	12-47
X100	#0	⅛" x 2"	⅞" x 2⅝"	4⅝"	$1.59	$1.43
X101	#1	3/16" x 3"	1" x 3⅝"	6⅝"	2.19	1.97
X108	#1	3/16" x 6"	1" x 3⅝"	9⅝"	2.76	2.48
X102	#2	¼" x 4"	1⅛" x 4⅛"	8⅛"	2.92	2.63
X103	#3	5/16" x 6"	1¼" x 4½"	10½"	4.07	3.66
X104	#4	⅜" x 8"	1⅜" x 4½"	12½"	5.29	4.76

EXTRA LONG

Xcelite No.	Point	Blade	Handle	Overall	1-11	12-47
X1010	#1	3/16" x 10"	1" x 3⅝"	13⅝"	$3.57	$3.21
X1020	#2	¼" x 10"	1⅛" x 4⅛"	14⅛"	4.04	3.63

"SUPER-TRU" PHILLIPS SCREWDRIVERS

Precision made Phillips screwdrivers have "Super-Tru" tips for close fit, long wear, and reduced possibility of damage to screw head recesses, especially in small size fasteners. Bright nickel chrome blades with tips specially treated and black-oxide finished for ultimate dimensional control. Black plastic handles.

Xcelite No.	Point	Blade	Handle	Overall	1-11	12-47
XST-100	0	⅛" x 2"	⅞" x 2⅝"	4⅝"	$1.99	$1.79
XST-101	1	3/16" x 3"	1" x 3⅝"	6⅝"	2.76	2.48
XST-102	2	¼" x 4"	1⅛" x 4⅛"	8⅛"	3.51	3.15
XST-1010	1	3/16" x 10"	1" x 3⅝"	13⅝"	4.18	3.75
XST-1020	2	¼" x 10"	1⅛" x 4⅛"	14⅛"	4.66	4.19

COLOR-CODED NUTDRIVERS (1¼" Hole Depth)

Steel shafts with precision, cold-drawn, case-hardened sockets. Color-coded, plastic handles.

MIDGET POCKET CLIP STYLE

Xcelite No.	Color	Hex	Blade	Handle	Overall	1-11	12-47
P3	Blue	3/32"	1¼"	½" x 2¼"	3½"	$1.55	$1.40
P4	Red	⅛"	1¼"	½" x 2¼"	3½"	1.55	1.40
P5	Amber	5/32"	1¼"	½" x 2¼"	3½"	1.55	1.40
P6	Black	3/16"	1¼"	½" x 2¼"	3½"	1.55	1.40
P7	Brown	7/32"	1¼"	½" x 2¼"	3½"	1.55	1.40
P8	Red	¼"	1¼"	½" x 2¼"	3½"	1.55	1.40
P9	Orange	9/32"	1¼"	½" x 2¼"	3½"	1.55	1.40
P10	Amber	5/16"	1¼"	½" x 2¼"	3½"	1.55	1.40
P11	Green	11/32"	1¼"	½" x 2¼"	3½"	1.55	1.40
P12	Blue	⅜"	1¼"	½" x 2¼"	3½"	1.55	1.40

REGULAR

Xcelite No.	Color	Hex	Blade	Handle	Overall	1-11	12-47
6	Black	3/16"	3"	1 1/16" x 3⅜"	6⅛"	$2.29	$2.06
7	Brown	7/32"	3"	1 1/16" x 3⅛"	6⅛"	2.29	2.06
8	Red	¼"	3"	1 1/16" x 3⅛"	6⅛"	2.29	2.06
9	Orange	9/32"	3"	1 1/16" x 3⅛"	6⅛"	2.29	2.06
10	Amber	5/16"	3"	1 1/16" x 3⅛"	6⅛"	2.29	2.06
11	Green	11/32"	3"	1 1/16" x 3⅛"	6⅛"	2.44	2.19
12	Blue	⅜"	3"	1 1/16" x 3⅛"	6⅛"	2.44	2.19
14	Brown	7/16"	2⅞"	1⅛" x 4⅛"	7"	3.12	2.81
16	Red	½"	2⅞"	1⅛" x 4⅛"	7"	3.12	2.81

COLOR-CODED HOLLOW SHAFT NUTDRIVERS

General purpose nutdrivers especially useful where nuts must be installed over long protruding bolts or studs.

REGULAR

Xcelite No.	Color	Hex	Blade	Handle	Overall	1-11	12-47
HS6	Black	3/16"	3⅛"	1 1/16" x 3⅛"	6¼"	$2.62	$2.36
HS7	Brown	7/32"	3⅛"	1 1/16" x 3⅛"	6¼"	2.62	2.36
HS8	Red	¼"	3⅛"	1⅛" x 4⅛"	7¼"	2.62	2.36
HS9	Orange	9/32"	3⅛"	1⅛" x 4⅛"	7¼"	2.62	2.36
HS10	Amber	5/16"	3⅛"	1⅛" x 4⅛"	7¼"	2.62	2.36
HS11	Green	11/32"	3⅛"	1⅛" x 4⅛"	7¼"	2.77	2.49
HS12	Blue	⅜"	3⅛"	1⅛" x 4⅛"	7¼"	2.77	2.49
HS14	Brown	7/16"	3⅛"	1⅛" x 4⅛"	7¼"	3.57	3.21
HS16	Red	½"	3⅛"	1⅛" x 4⅛"	7¼"	3.57	3.21
HS18	Orange	9/16"	3⅛"	1⅛" x 4⅛"	7¼"	3.57	3.21

EXTRA LONG
(HOLE DEPTH: A6-12, 6¾")

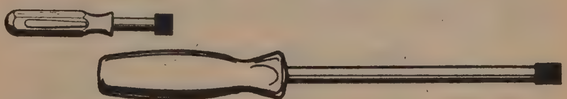
Xcelite No.	Color	Hex	Blade	Handle	Overall	1-11	12-47
L6	Black	3/16"	6	1 1/16" x 3⅛"	9⅛"	$3.21	$2.88
L8	Red	¼"	6	1⅛" x 4⅜"	9⅛"	3.21	2.88
L10	Amber	5/16"	6	1⅛" x 4⅜"	9⅛"	3.21	2.88
L11	Green	11/32"	6	1⅛" x 4⅛"	9⅛"	3.41	3.06
L12	Blue	⅜"	6	1⅛" x 4⅛"	9⅛"	3.41	3.06

ALLEN HEX TYPE SCREWDRIVERS

Alloy steel blades. Shockproof, breakproof, plastic handles.

No.	Hex	Blade	Handle	Overall	1-11	12-47
LN-20	.050"	4"	⅞" x 2⅝"	6⅝"	$2.29	$2.06
LN-21	1/16"	4"	⅞" x 2⅝"	6⅝"	2.29	2.06
LN-22	5/64"	4"	⅞" x 2⅝"	6⅝"	2.29	2.06
LN-23	3/32"	4"	1 1/16" x 3⅛"	7⅛"	2.29	2.06
LN-764	7/64"	4"	1 1/16" x 3⅛"	7⅛"	2.29	2.06
LN-24	⅛"	4"	1 1/16" x 3⅛"	7⅛"	2.49	2.24
LN-964	9/64"	4"	1 1/16" x 3⅛"	7⅛"	2.49	2.24
LN-25	5/32"	6"	1" x 3⅛"	9⅛"	2.49	2.24
LN-26	3/16"	6"	1⅛" x 4⅛"	10⅛"	2.49	2.24
LN-27	7/32"	6"	1⅛" x 4⅛"	10⅛"	2.76	2.48
LN-28	¼"	6"	1⅛" x 4⅛"	10⅛"	2.76	2.48

MAGNETIC HEX NUTDRIVERS



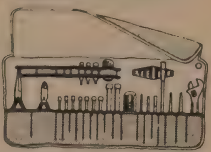
Nut and hex screw holding.

Xcelite No.	Color	Hex	Blade	Overall	1-11	12-47
8-M	Red	¼"	3"	6⅛"	$3.66	$3.29
10-M	Amber	5/16"	3"	6⅛"	3.66	3.29
L-8M	Red	¼"	6"	10⅛"	4.63	4.16
L-10M	Amber	5/16"	6"	10⅛"	4.63	4.16

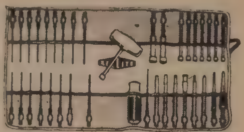
Xcelite No.	Color	Hex	Blade	Overall	1-11	12-47
LL-8M	Red	¼"	16¾"	20⅞"	$10.70	$9.62
LL-10M	Amber	5/16"	16¾"	20⅞"	10.70	9.62

XCELITE® Professional Hand Tools

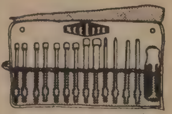
SERIES 99 SERVICE KITS



Xcelite No. 99SM—23-Piece Service Master Kit—Durable, plastic-coated canvas case contains 6" long nose "Cushion Grip" pliers, 5" diagonal "Cushion Grip" pliers, 6" thin-pattern adjustable wrench, regular (1 1/16" x 4 1/8") and stubby (1 1/16" x 2") plastic handles for interchangeable blades, 9 regular (3/16" thru 1/2") and 3 stubby (1/4", 5/16", 3/8") nutdriver blades, a #1 Phillips screwdriver blade, 3/16" and 1/4" slotted screwdriver blades, 1/8" to 3/8" and 1/4" to 1/2" reamer blades, 7" extension blade.......... **$79.50 ea.**

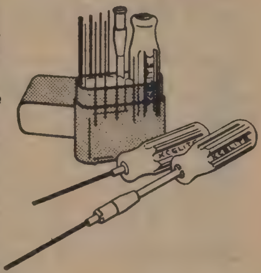


Xcelite No. 99MP—39-Piece Multi-Purpose Kit—Plastic-coated canvas case folds into compact package. Kit includes regular (1 1/16" x 4 1/8") and Tee (1" x 3 3/8") plastic handles and following interchangeable blades: 10 nutdriver (5/32" thru 1/2"), 9 Allen hex type screwdriver (.050" thru 3/16"), 9 Bristol Multiple-Spline screwdriver (.048" thru .183"), 3 slotted screwdriver (3/16", 1/4" and 5/16"), 2 Phillips screwdriver (#1 and #2), 2 reamers (1/8" to 3/8" and 1/4" to 1/2"), awl and 4" extension.......................... **$92.31 ea.**



Xcelite No. 99PR—14-Piece Nutdriver/Screwdriver Kit—Regular size (1 1/16" x 4 1/8") Series 99 handle and following blades: 9 nutdriver (3/16" thru 1/2"), 3/16" and 1/4" slotted screwdriver, #1 and #2 Phillips screwdriver. Roll-up plastic case. .... **$34.59 ea.**

SERIES 99 COMPACT SETS



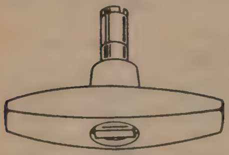
Pocket size, plastic cases pack an unusual number of tools into a small space. Flat bottom of case permits its use as bench stand. Series 99 blades are interchangeable in handle supplied with each set.

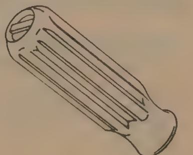
Xcelite No. 99PS-40—11-Piece Allen Hex Type Screwdriver Set—Regular size (1 1/16" x 4 1/8") Series 99 handle, 9 Allen hex type screwdriver blades (.050" thru 3/16"), 4" extension blade................ **$21.44 ea.**

Xcelite No 99PS-50—14-Piece Nutdriver/Screwdriver Set—Regular size (1 1/16" x 4 1/8") Series 99 handle and following blades: 7 nutdriver (3/16" thru 3/8"), 3/16" and 1/4" slotted screwdriver, #1 and #2 Phillips screwdriver, 4" extension .... **$27.02 ea.**

Xcelite No. 99PS-60—11-Piece Bristol Screwdriver Set—For Bristol Multiple-Spline socket screws. Regular size (1 1/16" x 4 1/8") Series 99 handle, 9 Bristol screwdriver blades (.048"/4-flute thru .183"/6-flute), 4" extension blade................. **$21.44 ea.**

SERIES 99 REVERSIBLE RATCHET HANDLES

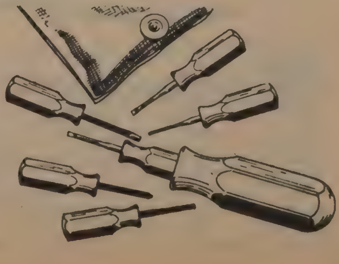




Unique plastic ratcheting handles fit over 60 different Xcelite blades—nutdrivers, screwdrivers and special purpose interchangeable blades—to speed up assembly and service work. Ratchet mechanism is fully enclosed to keep out dirt and grit. Recessed reversing shift is easily operated by a flick of the thumb; cannot be accidentally tripped while driving. Light ratchet drag for easy turning. Mechanism is fully contained within handle.

Xcelite No.	Description	Color	Size	1-11	12-47
99-1-R	Ratchet handle	Black	1 1/4" x 4 1/2"	$14.28	$12.83
99-4-R	Ratchet handle	Black	3 1/2" x 2 3/8"	14.28	12.83

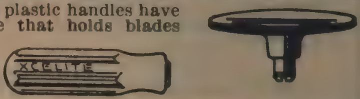
MINI SCREWDRIVER SET



Xcelite No. M-60—Six piece miniature screwdriver set includes one #00 Phillips driver, 5 slotted drivers (.040" thru .100") and torque amplifier handle. 1/8" blade lengths; 2 1/2" overall .... **$6.28 ea.**

SERIES 99 HANDLES & INTERCHANGEABLE BLADES

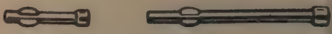
Shockproof, breakproof plastic handles have patented spring device that holds blades firmly yet permits easy insertion and removal.



HANDLES

Xcelite No.	Size and Description	Working Length	1-11	12-47
99-1	Regular, 1 1/16" x 4 1/8"	....	$2.07	$1.86
99-2	Junior, 1" x 3 1/8"	....	1.99	1.79
99-3	Stubby, 1 1/16" x 2"	....	1.97	1.77
99-4	Tee, 1 5/8" x 3 3/8"	....	2.21	2.43

NUTDRIVERS

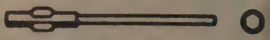


99-6	3/16"	3 5/8"	$1.97	$1.77
99-7	7/32"	3 5/8"	1.97	1.77
99-8	1/4"	3 5/8"	1.97	1.77
99-S8	1/4" Stubby	1 3/8"	1.55	1.40
99-9	9/32"	3 5/8"	1.97	1.77
99-10	5/16"	3 5/8"	1.97	1.77
99-S10	5/16" Stubby	1 3/8"	1.55	1.40
99-11	11/32"	3 5/8"	2.05	1.85
99-12	3/8"	3 5/8"	2.05	1.85
99-S12	3/8" Stubby	1 3/8"	1.55	1.40
99-14	7/16"	4"	2.64	2.37
99-16	1/2"	4"	2.64	2.37

MAGNETIC NUTDRIVERS

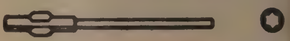
99-8M	1/4"	3 5/8"	$2.76	$2.48
99-10M	5/16"	3 5/8"	2.76	2.48

ALLEN HEX TYPE SCREWDRIVERS



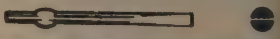
Xcelite No.	Size and Description	Working Length	1-11	12-47
99-20	.050"	4"	$1.79	$1.61
99-21	1/16"	4"	1.79	1.61
99-22	5/64"	4"	1.79	1.61
99-23	3/32"	4"	1.79	1.61
99-764	7/64"	4"	1.79	1.61
99-24	1/8"	4"	1.79	1.61
99-964	9/64"	4"	1.79	1.61
99-25	5/32"	4"	1.79	1.61
99-26	3/16"	4"	1.79	1.61

BRISTOL TYPE MULTIPLE-SPLINE SCREWDRIVERS



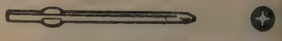
99-61	.048", 6-flute	4"	$1.79	$1.61
99-62	.060", 6-flute	4"	1.79	1.61
99-63	.069", 4-flute	4"	1.79	1.61
99-64	.072", 6-flute	4"	1.79	1.61
99-65	.076", 4-flute	4"	1.79	1.61
99-66	.096", 6-flute	4"	1.79	1.61
99-67	.111", 6-flute	4"	1.79	1.61
99-68	.145", 6-flute	4"	1.79	1.61
99-69	.183", 6-flute	4"	1.79	1.61

SLOTTED SCREWDRIVERS



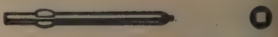
99-125	1/8"	3 7/8"	$1.97	$1.77
99-811	3/16"	3 7/8"	1.97	1.77
99-250	1/4"	3 7/8"	1.97	1.77
▶ 99-312	5/16"	3 7/8"	1.97	1.77

PHILLIPS SCREWDRIVERS



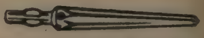
Xcelite No.	Size and Description	Working Length	1-4 ea.	5 Up ea.
99-820	#0	3 7/8"	$1.97	$1.77
99-821	#1	3 7/8"	1.97	1.77
99-822	#2	3 7/8"	1.97	1.77

SCRULOX® SCREWDRIVERS



99-SL-0	#0	4"	$1.97	$1.77
99-SL-1	#1	4"	1.97	1.77
99-SL-2	#2	4"	1.97	1.77

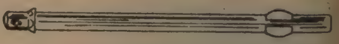
REAMERS



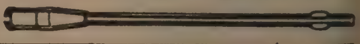
99-38	1/8" to 3/8"	4 1/8"	$5.06	$4.55

ADAPTERS

For use with 1/4" square drive sockets.



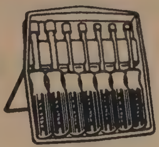
EXTENSION BLADES



99-X5	Extension	4"	$2.71	$2.43
99-X10	Extension	7"	2.92	2.63

XCELITE Professional Hand Tools

"TRAY BIEN" NUTDRIVER SETS

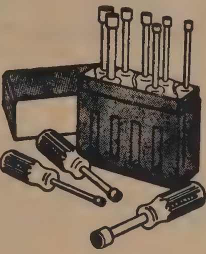


Durable, molded plastic trays with fold-away stand, wall-mounting holes and snap-lock arrangement to hold tools firmly. Nutdrivers have color-coded, shockproof, breakproof plastic handles. Precision, case-hardened sockets.

Xcelite No. 127TB—Seven nutdrivers (3/16" thru ¾" hex sizes) with 1¼" deep bolt clearance hole in shaft........**$16.33 ea.**

Xcelite No. 147TB—Seven hollow shaft (¼" thru ½" hex sizes) nutdrivers..................................**$20.54 ea.**

"KEEP AND CARRY" NUTDRIVER SET



Sturdy yellow plastic case keeps color-coded nutdrivers in order on work-bench. Tight fitting, snap-lock covers permit carry-out convenience without spilling or losing them in tool box.

Xcelite No. HS6-18 Hollow Shaft Nut-driver Set—Ten hex sizes 3/16" thru 9/16"...................**$29.35 ea.**

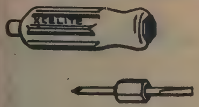
NUTDRIVER SETS

Popular sizes of color-coded nutdrivers in handy plastic case with eyelet for hanging.

Xcelite No. 157 7-Piece Nutdriver Set—Shafts have 1¼" clearance hole depth. Includes 3/16", ¼", 5/16", 11/32", ⅜", 7/16" and ½" hex sizes. Overall length, 6⅛" except 7/16" and ½" sizes, 6¾" long. Color-coded handles............................**$17.59 ea.**

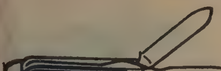
Xcelite No. 177 7-Piece Hollow Shaft Nutdriver Set—Includes 3/16, ¼", 5/16", 11/32", ⅜", 7/16" and ½" sizes. Overall, 7¼" except 3/16" size, 6¼". Shaft, 3⅛". Color-coded handles....**$20.54 ea.**

COMBINATION SCREWDRIVER/NUTDRIVER SET



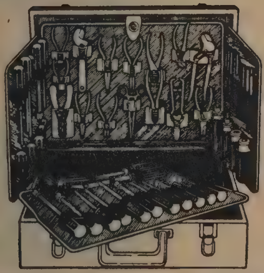
Xcelite No. 600—Handy 4-way tool with ¼" and 7/16" hex openings in handle. Stubby blade has #1 Phillips and 3/16" slotted ends.
Lots 1-11..............**$5.06 ea.**
Lots 12-47..............**4.55 ea.**

ELECTRICIAN'S KNIFE



Xcelite No. K22—Combination knife and screwdriver. Screwdriver blade has sharp edge for scraping insulation. Has positive lock when open..............**$10.07 ea.**

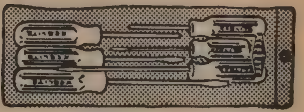
ATTACHE STYLE TOOL CASES



Quality tool cases built to last for the field engineer and technician/serviceman. Outfitted with wide variety of Xcelite screwdrivers, nutdrivers, hex drivers, pliers, wrenches, wire strippers and more. Plenty of space in bottom of case for soldering equipment, meters, test equipment, parts, etc. Tool pallets are removable. Lid has literature pocket. Two styles—TC 100/ST, illustrated, with 53 single tools and 3 sets; TC 150/ST with 23 single tools, 1 set and soldering iron; and TC 200/ST with 10 single tools and 1 set.

Xcelite No. TC 100/ST—Case with tools........**$441.36 ea.**
Xcelite No. TC 100/MT—Case only............ **127.81 ea.**
Xcelite No. TC 150/ST—Case with tools........ **356.10 ea.**
Xcelite No. TC 150/MT—Case only............ **115.23 ea.**
Xcelite No. TC 200/ST—Case with tools........ **224.96 ea.**
Xcelite No. TC 200/MT—Case only............ **71.23 ea.**

SCREWDRIVER SETS

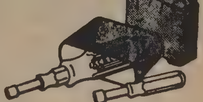


Xcelite No. SDR-11 5-Piece Screwdriver Set—Round blade for slotted screws. Includes ⅛", 5/32", 3/16", ¼" and 5/16" blade dia. Overall, 4⅝" to 10¼". Blade length, 2" to 6"......**$12.10 ea.**

Xcelite No. SDX-22 5-Piece Phillips Screwdriver Set—Includes sizes 0, 1, 2 and 3 with blade lengths from 2" to 6", overall length from 4⅝" to 10½"; plus a #2 stubby Phillips, 1 5/16" blade, 3 5/16" overall..................................**$13.39 ea.**

Xcelite No. SD-3V 3-Piece Screwdriver Set—Includes three pocket-clip type.: 3/32" and ⅛" slotted and #0 Phillips........**$3.61 ea.**

COMPACT SCREWDRIVER, NUTDRIVER AND HEX DRIVER SETS



Torque amplifier hollow handle slips over tops of midget tools (all 3½") for larger grip, extended reach and increased driving power. See-thru plastic case fits pocket.

Xcelite No. PS7 Screwdriver/Nutdriver Set—Two (¼", 5/16") nutdrivers; 2 slot-tip (3/32", 3/16") and 2 Phillips (#0, 1) screwdrivers............**$10.52 ea.**

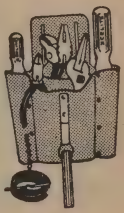
Xcelite No. PS88 Screwdriver Set—Five slot-tip (3/32", ⅛", 5/32", 3/16", ¼"), 3 Phillips (#0, 1 and 2).**$13.51 ea.**

Xcelite No. PS120 Nutdriver Set—Ten (3/32" thru ⅜") nutdrivers..**$17.03 ea.**

Xcelite No. PS130 Screwdriver/Nutdriver Set—Contains Phillips (#1, 2); 3 slotted (⅛", 3/16" and ¼") and 5 (3/16" thru ⅜") nutdrivers..**$17.62 ea.**

Xcelite No. PS89 Hex Driver Set—Contains eight midget Allen hex type drivers in sizes from .028" to ⅛"............**$12.61 ea.**

TOOL HOLSTER

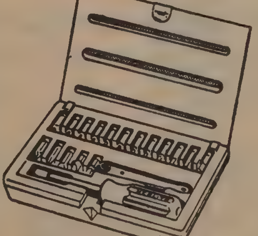


Xcelite No. 150—Handy tool holster has tape holder, knife clip, and five tool pockets. Durable construction of saddle leather with natural cowhide finish. Comfortable hip-contoured back, hot-waxed stitching, brass rivets. Tools not included..........................**$19.39 ea.**

Xcelite No. PS121MM Metric Nutdriver Set—Contains 10 metric drivers from 3 mm to 10 mm....................**$21.03 ea.**

Xcelite No. PS90MM Metric Allen Hex Set—Contains 8 Allen Hex drivers from 0.89 mm to 5 mm..................**$14.28 ea.**

MIDGET REVERSIBLE RATCHET OFFSET SCREWDRIVER SET



All-purpose set for Allen hex type, Phillips and slotted screws. Reversible ratchet and spinner/extension can also be used with ¼" square drive sockets, with adapter included. Bits are precision made of chrome nickel molybdenum alloy steel. Knurled spinner tops for quick finger starting of screws. Heavy-duty 20-tooth, ¼" hex drive ratchet of stainless steel with quick action and short (18°) turning radius. Includes: 12 Allen hex type screw bits (.050" to 5/16"), two slotted screw bits, #1 and #2 Phillips bits, 3¾" reversible ratchet, 6" spinner extension, ¼" hex to ¼" square adapter; and molded, compartmented case.

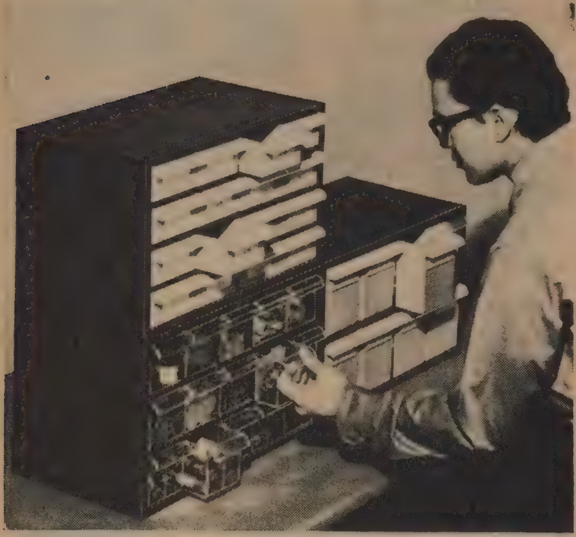
Xcelite No. XL-70.................................**$32.63 ea.**

Xcelite No. XL-75 Offset Screwdriver Kit—Includes ratchet described above and four screwdriver bits (3/16" and ¼" slotted #1 and #2 Phillips) in plastic pocket kit...........**$10.08 ea.**

AKRO-MILS

Storage Drawers

HEAVY-DUTY WELDED STEEL FRAME—MOLDED STYRENE DRAWERS



COMPACT MODULAR CABINET— 10 DRAWER SIZES

STORE—Small parts, electronic components, medical supplies, A-V material, hardware, tools, instruments.

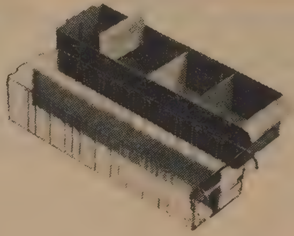
SAVE TIME—Instantly locate parts and supplies.

SAVE SPACE—Pick the right drawer for your requirements, compact modular cabinets are only 18″ w. x 11″ h. except 17-136, 9½″ h. and 17-018, 9″ h.

VERSATILE—Stack horizontally or vertically, wall mount, place on carts or shelves.

HEAVY-DUTY STEEL FRAME CABINET

Charcoal gray baked enamel finish, steel drawer supports, nesting "feet" for stability in stacking.



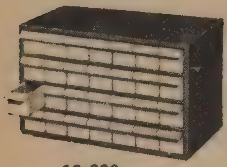
MOLDED STYRENE DRAWERS—TWO TYPES

GRAY HEAVY-DUTY—Virtually unbreakable, guaranteed for life, will not crack, break or dent.

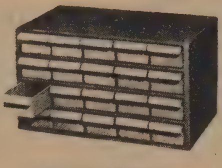
TRANSPARENT—See-thru for quick visual checks; medium duty.

Styrene drawers are lightweight; rust and corrosion proof; safe, no sharp edges; spill proof, retaining tab holds open drawers. All drawers can be partitioned with dividers into sub-compartments. Patented locking dividers will not creep or slip.

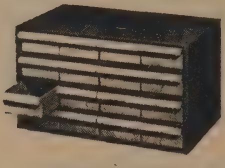
FRAME SIZE 18″ W. X 11″ H. X 11″ D.



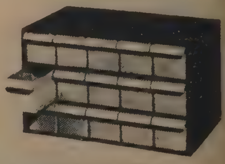
18-228



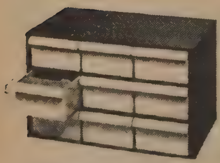
17-320, 18-320



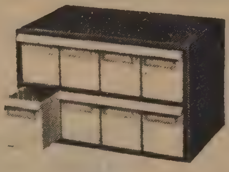
17-416, 18-416



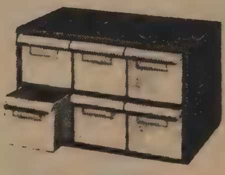
17-715, 18-715



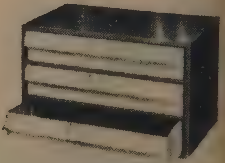
17-909, 18-909



18-608



18-956



18-803

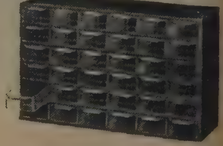
ORDERING AND PRICING INFORMATION

Akro-Mils Cabinet No.*		Drawer				Shp. Wt., Lbs.	Net Each	Extra Dividers			
Transparent Drawers	Gray Heavy-Duty Drawers	per Cabinet	Size, Inches W.	H.	D.			Cross No.	Net per Pkg. (25)	Length No.	Net per Pkg. (10)
17-136	....	36	2¾	1¼	5⅞	12	$27.36	40-501	$1.54	42-121†	$3.58
....	18-228	28	2⅛	2⅛	11	22	40.74	42-201	4.58	....	...
17-018	....	18	2¾	2½	5⅞	10	27.36	40-902	2.92	....	...
17-320	18-320	20	3⅛	2⅛	11	21	40.74	42-301	2.92	42-431	2.92
17-416	18-416	16	4	2⅛	11	20	40.74	42-401	3.58	42-431	2.92
17-715	18-715	15	3⅛	3$\frac{1}{32}$	11	20	40.74	43-101	4.38	43-331	4.38
17-909	18-909	9	5¼	3$\frac{1}{32}$	11	18	40.74	43-301	4.70	43-331	4.38
....	18-608	8	4	4¾	11	22	40.74	44-401	5.61	....	....
....	18-956	6	5¼	4¾	11	22	40.74	44-501	6.13	....	....
....	18-803	3	16¾	3$\frac{1}{32}$	11	18	40.74	....	...	43-331	4.38

*One cross divider per drawer furnished except 18-803. †Pkg. of 25.

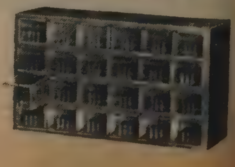
FRAME SIZE 18″ W. X 9½″ H. X 6″ D.

17-136



FRAME SIZE 18″ W. X 9″ H. X 6″ D.

17-018



AKRO-MILS

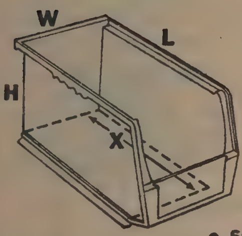
Drawers and Storage Bins

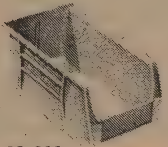
SHELF BINS

Seamless, molded polypropylene bins for 12″ deep shelving. Movable dividers included with two largest bins. Built-in hang lock catches underside of shelf above. Handles include large label area. Bins nest to save space. Permanently molded, bright yellow color. Water, oil and grease proof. Will outlast corrugated bins.

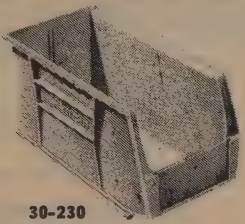
Akro-Mils No.	Size, Inches W.	H.	L.	No. in Carton	Net Each
30-110	2	4	11¾	24	$0.84
30-120	4⅛	4	11¾	24	1.09
30-128	4⅛	4	18	12	1.52
30-130	6	4	11¾	24	1.83
30-138	6	4	18	12	2.56

AKROBINS STACKING STORAGE BINS



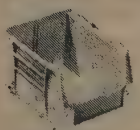


30-220



30-230

- **Suspendable from most straight rails. Full width hanger for extra-strong support.**
- **Extra-wide stacking ledges.**
- **Special "stop" prevents loaded bins from shifting in transit.**
- **Data process inventory card slot.**
- **Large label slot for easy identification.**
- **Reinforcing ribs prevent bins from spreading under heavy loads.**
- **Finger grips for easy handling.**
- **Heavy-duty molded polyethylene.**

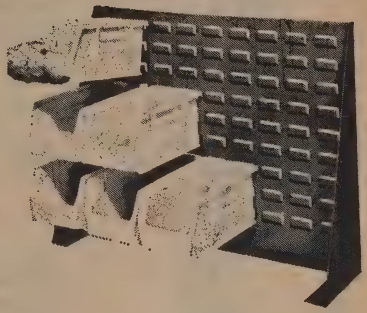


30-210

Akro-Mils No.*	Inside Dimensions, Inches L	W	H	X	Outside Dimensions, Inches L	W	H	Carton Qty.	Wt., Lbs.	Net Each
30-210	4¾	3 7/16	2 13/16	4	5⅜	4⅛	3	24	7	$0.60
30-220	6¾	3 7/16	2 13/16	6	7⅜	4⅛	3	24	8	1.12
30-230	10¼	4⅜	4¾	9	10⅞	5½	5	12	12	2.74
30-240	14	6 9/16	6¾	12	14¾	8¼	7	12	22	5.46
30-250	14	14¾	6¾	12	14¾	16½	7	6	18	7.65

*Specify color when ordering. Colors available: Blue, yellow, red. One color per carton.

BENCH RACK



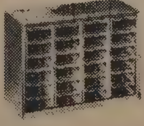
Compact bench rack measures 27½″ x 20″ x 8″. Welded steel with black, baked enamel finish. Sturdy frame with side supports snaps together, no nuts or bolts required. Heavy duty 120 lb. capacity. Accommodates three sizes of Akro-Bins: 24 of No. 30-210, 24 of No. 30-220 or 12 of No. 30-230.

Akro-Mils No. 98-600 Bench rack only—Net Each.................... **$26.05**

ECONOMY STEEL FRAME CABINETS

STEEL FRAME—SEE-THRU DRAWERS

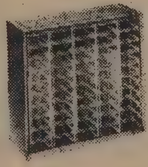
24 OR 12 DRAWER PORTABLE CABINET



Cabinet has 24 see-thru drawers 2¾″ x 1¼″ x 5¾″. Unitized steel frame with blue enamel finish. Dividable drawers. Size, 13″ x 9½″ x 6½″. Shpg. Wt. 7 lbs.

Akro-Mils No. 11-124—Net Ea. **$11.70**

50 DRAWER CABINET



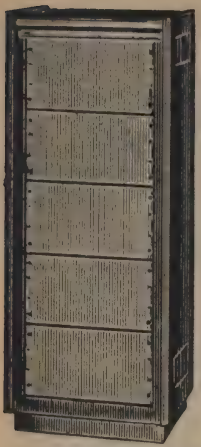
Fifty full-size 2¾″ x 1¼″ x 5¾″ drawers in see-thru plastic. Plenty of storage room. Unitized steel frame with blue, baked enamel finish. Can be wall mounted. Dividable drawers. Size, 16″ x 15″ x 6½″. Shpg. Wt. 12 lbs.

Akro-Mils No. 11-150—Net Ea. **$22.12**

Series 2000 Cabinet Racks

SERIES 2000 UPRIGHT CABINET RACKS

Modern track enclosures combine the dramatic appearance of sheer, square lines with rugged Bud construction. Basic frame is all-welded with 14 gauge steel members; 18 gauge steel door, sides and top. "U" braces welded to sides of frame augment its strength and rigidity and act as a mounting for the vertical rails, which can be horizontally adjusted. Front and rear panel mounting rails are tapped 10-32. E.I.A. universal spacing. Caster bracket in base accepts Bud RC-7758 casters. All cabinets accept standard 19" panels. Shipped textured (**RB**) with clear anodized extrusion cowl. **Specify Color When Ordering.**
30" deep racks also available; prices on request.


Upright Cabinet Rack Panels not Included

23⅞" OUTSIDE DEPTH—20½" CLEAR INSIDE DEPTH

With Plain Sides and Door				Size, Inches			With Louvered Sides and Door			
Bud No.	Net Each, Lots of 1-2	3-4	5-7	Ht.	Panel Space	Wt., Lbs.	Bud No.	Net Each, Lots of 1-2	3-4	5-7
E-2000	$474.10	$426.70	$379.30	30¼	21	125	E-2016	$487.00	$438.30	$389.60
E-2001	508.00	457.20	406.40	40¾	31½	150	E-2017	538.60	484.75	430.90
E-2002	525.70	473.15	420.55	44¼	35	155	E-2018	557.95	502.15	446.35
E-2003	572.50	515.25	458.00	51¼	42	167	E-2019	611.80	550.60	489.45
E-2004	632.10	568.90	505.70	61¾	52½	205	E-2020	656.25	590.65	525.00
E-2005	691.75	622.60	553.40	70½	61¼	219	E-2021	711.10	640.00	568.90
E-2006	725.65	653.10	580.50	79¼	70	252	E-2022	736.90	663.20	589.50
E-2007	786.90	708.20	629.50	88	78¾	262	E-2023	806.25	725.65	645.00

27⅜" OUTSIDE DEPTH—24" CLEAR INSIDE DEPTH

Bud No.	1-2	3-4	5-7	Ht.	Panel Space	Wt., Lbs.	Bud No.	1-2	3-4	5-7
E-2008	$480.55	$432.50	$384.45	30¼	21	135	E-2024	$498.25	$448.45	$398.60
E-2009	525.70	473.15	420.55	40¾	31½	160	E-2025	548.25	493.45	438.60
E-2010	548.25	493.45	438.60	44¼	35	165	E-2026	569.20	512.30	455.35
E-2011	603.10	542.80	482.50	51¼	42	187	E-2027	619.20	557.30	495.35
E-2012	661.15	595.05	528.90	61¾	52½	222	E-2028	667.60	600.85	534.10
E-2013	715.95	644.35	572.75	70½	61¼	229	E-2029	717.55	645.80	574.05
E-2014	741.75	667.60	593.40	79¼	70	256	E-2030	749.80	674.80	599.85
E-2015	803.05	722.75	642.45	88	78¾	280	E-2031	817.50	735.75	654.00

SERIES 2000 INCLINED PANEL CABINET RACKS

Same modern styling and rugged construction as upright racks above, with 20° inclined panel for comfortable viewing of mounted instruments. Panel mounting rails in front vertical and inclined panel sections, as well as in the rear, are adjustable front-to-rear. Height 51¼"; width, 24 3/16"; outside depth, 23⅞"; clear inside depth, 20½". Weight, 173 lbs. Available in same textured finishes as above. **Specify Color When Ordering.** **30" deep racks also available; prices on request.**

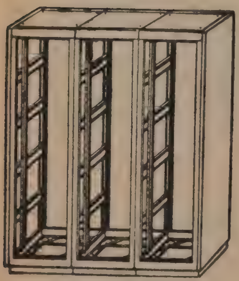
Inclined Panel Cabinet Rack Panels not Included

With Plain Sides and Door				Inclined Panel Space	Vertical Panel Space	With Louvered Sides and Door			
Bud No.	Net Each, Lots of 1-2	3-4	5-7			Bud No.	Net Each, Lots of 1-2	3-4	5-7
SE-2064	$606.30	$545.65	$485.05	10½"	29¾"	SE-2067	$621.30	$559.15	$497.05
SE-2065	606.30	545.65	485.05	15¾"	24½"	SE-2068	621.30	559.15	497.05
SE-2066	606.30	545.65	485.05	17½"	22¾"	SE-2069	621.30	559.15	497.05

ADD-A-RACKS AND ACCESSORIES FOR SERIES 2000

ADD-A-RACK SERIES FOR UPRIGHT CABINETS

Used as an add-on unit to join Series 2000 upright racks into a bank of two or more. Each assembly consists of a frame, top, bottom, rear door and cowlings. One standard rack must be used, plus any number of Add-A-Rack units. **Specify Color When Ordering**; same as above racks.


Add-A-Rack

With Plain Door					With Louvered Door					
Bud No.	For Add-on to Rack	Net Each, Lots of 1-2	3-4	5-7	Bud No.	For Add-on to Rack	Net Each, Lots of 1-2	3-4	5-7	Wt., Lbs.
AE-2032	E-2000	$378.90	$341.00	$303.10	AE-2048	E-2016	$398.75	$358.45	$318.60	90
AE-2033	E-2001	401.50	361.35	321.20	AE-2049	E-2017	432.15	388.95	345.70	110
AE-2034	E-2002	420.25	378.70	336.60	AE-2050	E-2018	454.75	409.30	363.80	113
AE-2035	E-2003	441.85	397.65	353.50	AE-2051	E-2019	480.55	432.50	384.45	115
AE-2036	E-2004	482.20	434.00	385.75	AE-2052	E-2020	507.90	457.10	406.30	145
AE-2037	E-2005	538.60	484.75	430.90	AE-2053	E-2021	556.30	500.65	445.05	148
AE-2038	E-2006	564.40	507.95	451.50	AE-2054	E-2022	582.10	523.90	465.70	512
AE-2039	E-2007	645.00	580.50	516.00	AE-2055	E-2023	675.60	608.05	540.50	158
AE-2040	E-2008	399.90	359.90	319.90	AE-2056	E-2024	419.25	377.35	335.40	120
AE-2041	E-2009	417.60	375.85	334.10	AE-2057	E-2025	450.00	405.00	360.00	130
AE-2042	E-2010	436.95	393.25	349.55	AE-2058	E-2026	464.40	417.95	371.50	135
AE-2043	E-2011	470.85	423.75	376.70	AE-2059	E-2027	508.00	457.20	406.30	138
AE-2044	E-2012	506.20	455.60	404.95	AE-2060	E-2028	533.70	480.35	426.95	142
AE-2045	E-2013	549.90	491.90	439.90	AE-2061	E-2029	582.10	523.90	465.70	164
AE-2046	E-2014	586.95	528.25	469.55	AE-2062	E-2030	625.65	563.10	500.50	168
AE-2047	E-2015	664.35	597.90	531.50	AE-2063	E-2031	696.60	626.95	557.30	172

ADD-A-RACK SERIES FOR INCLINED PANEL CABINETS

Bud No.	For Add-on to Rack	1-2	3-4	5-7	Bud No.	For Add-on to Rack	1-2	3-4	5-7	Wt., Lbs.
ASE-2084	SE-2064	$565.55	$509.00	$452.45	....	....	....	....	....	115
ASE-2085	SE-2065	565.55	509.00	452.45	....	....	....	....	....	115
ASE-2086	SE-2066	565.55	509.00	452.45	....	....	....	....	....	120

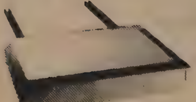
ACCESSORY FRONT DOORS FOR UPRIGHT CABINETS

Plain Type				For Vertical Panel Space of	Wt., Lbs.	Louvered Type			
Bud No.	Net Each, Lots of 1-2	3-4	5-7			Bud No.	Net Each, Lots of 1-2	3-4	5-7
E-9000	$106.20	$ 95.60	$ 84.95	21"	15	E-9020	$121.15	$109.05	$ 96.90
E-9001	118.50	106.65	94.80	31½"	18	E-9021	135.10	121.60	108.10
E-9002	125.20	112.70	100.15	35"	19	E-9022	142.65	128.40	114.10
E-9003	134.40	120.95	107.50	42"	23	E-9023	153.15	137.85	122.50
E-9004	139.75	125.80	111.80	52½"	27	E-9024	158.55	142.70	126.85
E-9005	146.05	131.45	116.85	61¼"	29	E-9025	166.45	149.80	133.15
E-9006	153.10	137.80	122.50	70"	31	E-9026	174.45	157.00	139.55
E-9007	164.80	148.30	131.85	78¾"	33	E-9027	187.90	169.10	150.30

ACCESSORY FRONT DOORS FOR INCLINED PANEL CABINETS

Bud No.	1-2	3-4	5-7	For Vertical Panel Space of	Wt., Lbs.	Bud No.	1-2	3-4	5-7
E-9008	$131.55	$118.40	$105.25	29¾"	11	E-9028	$150.15	$135.15	$120.10
E-9009	122.25	110.05	97.80	24½"	10½	E-9029	139.30	125.35	111.45
E-9010	120.40	108.35	96.30	22¾"	9	E-9030	118.50	106.65	94.80

DESK TOPS FOR SERIES 2000 CABINET RACKS



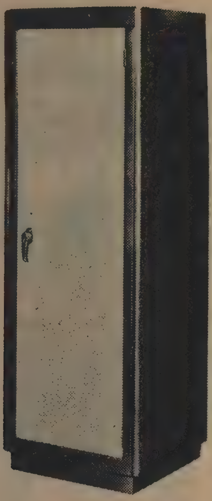
Provides a smooth writing surface or shelf on upright or inclined panel cabinet rack. Two pre-slotted supporting channels bolt to panel mounting rails. Antique white Formica* surface. Supports over 200 lbs. **Size:** 24 3/16" wide, 19½" deep, 3 1/16" high. Specify **GT** for gray textured; **RB** for royal blue textured.

Bud No.	Fits Cabinet with Depth of	Supporting Channel	Wt., Lbs.	Net Each, Lots of 1-2	3-4	5-7
DT-2960	23⅞"	21¼"	29	$129.50	$116.55	$103.60
DT-2962	27⅜"	24¾"	30	133.85	120.45	107.10

*Registered Synthane Corp. trademark.

Series “60” Cabinet Racks

UPRIGHT CABINET RACKS



Panels not included

Completely assembled 19″ racks with sides, rear door and top. Standard units have plain sides and door and solid top. For greater ventilation, order units with louvered sides and rear door and solid top. Width, $24^{1}/_{16}$″. Inside depth 20½″ clear on all units with 22″ outside depth; 24″, all others. Top opening $18^{5}/_{16}$″ w. × 17″ d. on units with 22″ outside depth; $18^{5}/_{16}$″ w. × 20½″ d., all others. **Specify Color When Ordering.**

Standard finishes are textured enamel over primer. Units immediately available in royal blue textured **(RB)** and gray textured **(GT)**.

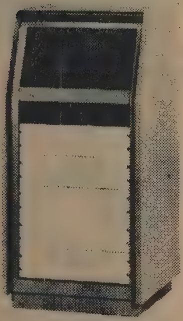
Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have “U” braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 18 gauge steel. Door may be mounted to open left or right. Vertical channel, 4″ wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front and rear rails drilled and tapped 10-32 on E.I.A. universal spacing.

All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed.

Plain Sides and Door							Louvered Sides and Door			
	Net Each, Lots of							Net Each, Lots of		
Bud No.	1-2	3-4	5-7	Height	Panel Space	Weight Lbs.	Bud No.	1-2	3-4	5-7
	22″ Outside Depth/20½″ Clear Inside Depth									
60-2300	$448.25	$403.45	$358.60	29⅝″	21″	118	60-2700	$467.60	$420.80	$374.10
60-2301	488.65	439.75	390.90	40⅛″	31½″	149	60-2701	506.30	455.65	405.00
60-2302	553.05	497.75	442.45	50⅝″	42″	173	60-2702	567.60	510.85	454.10
60-2303	604.65	544.20	483.70	61⅛″	52½″	203	60-2703	624.10	561.65	499.25
60-2304	656.25	590.60	525.00	69⅞″	61¼″	220	60-2704	675.65	608.10	540.55
60-2305	699.85	629.85	559.85	78⅝″	70″	235	60-2705	722.40	650.15	577.90
60-2306	754.65	679.20	603.75	87⅜″	78¾″	258	60-2706	778.80	700.90	623.05
	25½″ Outside Depth/24″ Clear Inside Depth									
60-2307	$465.95	$419.40	$372.75	29⅝″	21″	130	60-2707	$483.75	$435.40	$387.00
60-2308	501.00	450.90	400.80	40⅛″	31½″	155	60-2708	517.65	465.90	414.10
60-2309	565.95	509.35	452.75	50⅝″	42″	176	60-2709	583.70	525.35	466.95
60-2310	612.75	551.50	490.20	61⅛″	61¼″	211	60-2710	633.75	570.35	507.00
60-2311	672.35	605.15	537.90	69⅞″	61¼″	240	60-2711	693.35	624.05	554.70
60-2312	711.15	640.05	568.90	78⅝″	70″	241	60-2712	732.10	658.85	585.65
60-2313	772.35	695.10	617.85	87⅜″	78¾″	270	60-2713	798.20	718.40	638.55

30″ deep racks also available; prices on request.

INCLINED PANEL CABINET RACKS



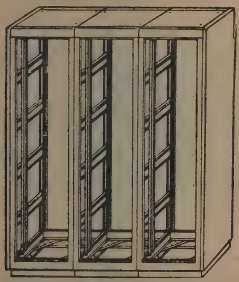
Inclined Panel Cabinet Rack
Panels not included

Completely assembled with sides, rear door and solid top. Available in two combinations of plain or louvered sides and rear door. **Specify Color When Ordering:** Add suffix **GT** to number for gray; **RB** for blue. Size, 50⅝″ h. × $24^{1}/_{16}$″ w. × 22″ d., outside 20½″ d., clear inside. Weight, 165 lbs.

	Net Each, Lots of			Incline Panel Height,	Vertical Panel Height	Opening D.*		Net Each Lots of		
Bud No.	1-2	3-4	5-7				Bud No.	1-2	3-4	5-7
With Plain Sides and Door							With Louvered Sides and Door			
60-2330	$556.35	$500.70	$445.10	10½″	29¾″	$11^{13}/_{16}$″	60-2730	$586.95	$528.25	$469.55
60-2331	556.35	500.70	445.10	15¾″	24½″	10″	60-2731	586.95	528.25	469.55
60-2332	556.35	500.70	445.10	17½″	22¾″	$9^{7}/_{16}$″	60-2732	586.95	528.25	469.55

*Width is $18^{5}/_{16}$″. **30″ deep racks also available; prices on request.**

ADD-A-RACK SERIES FOR 60 UPRIGHT CABINET RACKS

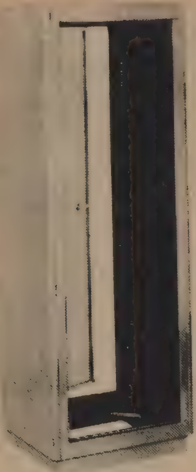


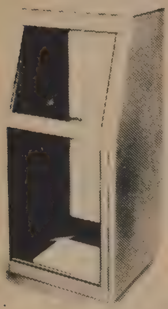
Add-A-Rack

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as Racks.

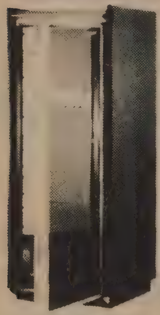
Plain Door					Louvered Door				
		Net Each, Lots of					Net Each, Lots of		
Bud No.	For Add-on to Rack No.	1-2	3-4	5-7	Bud No.	For Add-on to Rack No.	1-2	3-4	5-7
60-2500	60-2300	$370.85	$333.80	$296.70	60-2900	60-2700	$377.30	$339.60	$301.85
60-2501	60-2301	406.35	365.70	325.10	60-2901	60-2701	417.65	375.90	334.15
60-2502	60-2302	438.60	394.75	350.90	60-2902	60-2702	300.00	270.00	240.00
60-2503	60-2303	470.85	423.75	376.70	60-2903	60-2703	482.15	433.95	385.75
60-2504	60-2304	593.40	534.05	474.70	60-2904	60-2704	528.90	476.00	423.10
60-2505	60-2305	569.25	512.35	455.40	60-2905	60-2705	583.75	525.35	467.00
60-2506	60-2306	607.95	547.15	486.35	60-2906	60-2706	622.45	560.20	497.95
60-2507	60-2307	382.15	343.90	305.70	60-2907	60-2707	390.25	351.20	312.20
60-2508	60-2308	424.15	381.70	339.30	60-2908	60-2708	437.00	393.30	349.60
60-2509	60-2309	457.95	412.15	366.35	60-2909	60-2709	472.45	425.20	377.95
60-2510	60-2310	486.95	438.25	389.60	60-2910	60-2710	501.50	451.35	401.20
60-2511	60-2311	545.00	490.50	436.00	60-2911	60-2711	559.50	503.55	447.60
60-2512	60-2312	593.40	534.05	474.75	60-2912	60-2712	607.50	546.75	486.00
60-2513	60-2313	622.45	560.20	497.95	60-2913	60-2713	637.50	573.75	510.00
60-2530	60-2330	417.60	375.85	334.10	60-2930	60-2730	445.05	400.55	356.05
60-2531	60-2331	417.60	375.85	334.10	60-2931	60-2731	445.05	400.55	356.05
60-2532	60-2332	417.60	375.85	334.10	60-2932	60-2732	445.05	400.55	356.05

Series "60" Rack Accessories





Inclined Panel Rack



Plexiglas Door

ACCESSORIES FOR UPRIGHT CABINET RACKS

FOR 19" PANEL SPACE

ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack; mount to open either left or right. Width, $18^{15}/_{16}$". Rear door supplied with rack.

Plain Type							Louvered Type			
	Net Each, Lots of				Fits Rack With			Net Each, Lots of		
Bud No.	1-2	3-4	5-7	Ht.	Panel Space of	Wt., Lbs.	Bud No.	1-2	3-4	5-7
60-2340	$ 73.30	$ 65.95	$ 58.65	$21^{7}/_{16}$"	21"	8	60-2540	$ 82.05	$ 73.85	$ 65.65
60-2341	78.90	71.00	63.10	$31^{15}/_{16}$"	31½"	11½	60-2541	88.05	79.25	70.45
60-2342*	87.10	78.40	69.70	$42^{7}/_{16}$"	42"	15½	60-2542	97.90	88.10	78.30
60-2343	97.05	87.35	77.65	$52^{15}/_{16}$"	52½"	19	60-2543	107.95	97.15	86.35
60-2344	107.20	96.50	85.75	$61^{11}/_{16}$"	61¼"	22¼	60-2544	120.85	108.75	96.70
60-2345	125.50	112.95	100.40	$70^{7}/_{16}$"	70"	25½	60-2545	133.95	120.55	107.15
60-2346	129.90	116.90	103.90	$79^{3}/_{16}$"	78¾"	29	60-2546	146.20	131.60	116.95

*For use as rear door for all inclined panel cabinet racks.

ACCESSORY SIDES

Width, 22" except 60-2567-60-2573, 25½". Sold in pairs only.

Plain Type							Louvered Type			
	Net Each Pair, Lots				Fits Rack With			Net Each Pair, Lots		
Bud No.	1-2	3-4	5-7	Ht.	Panel Space of	Wt., Lbs.	Bud No.	1-2	3-4	5-7
60-2560	$ 97.05	$ 87.35	$ 77.65	26⅞"	21"	12½	60-2580	$114.50	$103.10	$ 91.60
60-2561	127.80	115.00	102.85	37⅜"	31½"	17½	60-2581	148.95	134.05	119.15
60-2562	149.25	134.35	119.40	47⅞"	42"	21	60-2582	179.55	161.60	143.65
60-2563	171.65	154.50	137.35	58⅜"	52½"	26¼	60-2583	211.05	189.95	168.85
60-2564	189.00	170.10	151.20	67⅛"	70"	34	60-2584	233.10	209.80	186.50
60-2565	200.00	180.00	160.00	75⅞"	70"	34	60-2585	236.25	212.65	189.00
60-2566	239.40	215.45	191.50	84⅜"	78¾"	38	60-2586	272.50	245.20	218.00
60-2567	122.25	110.00	97.80	26⅞"	21"	14½	60-2587	134.15	120.75	107.35
60-2568	159.05	143.15	127.25	37⅜"	31½"	20	60-2588	174.85	157.35	139.90
60-2569	184.25	165.80	147.40	47⅞"	42"	24	60-2589	203.15	182.85	162.50
60-2570	214.20	192.80	171.35	58⅜"	52½"	29½	60-2590	236.25	212.60	189.00
60-2571	234.65	211.20	187.75	67⅛"	61¼"	34½	60-2591	259.80	233.85	207.85
60-2572	261.45	235.30	209.15	75⅞"	70"	39	60-2592	285.10	256.60	228.10
60-2573	274.50	247.05	219.60	84⅜"	78¾"	43½	60-2593	300.75	270.70	240.60

ACCESSORY PERFORATED TOP FOR UPRIGHT CABINET RACK

Width, $21^{15}/_{16}$".

Bud No.	For Panel Space	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of		
					1	2	3-4
60-2370	19"	17"	With overall depth of 22"	6	$35.60	$26.70	$24.05
60-2371	19"	20½"	With overall depth of 25½"	7	37.70	28.30	25.45

ACCESSORIES FOR INCLINED PANEL CABINET RACKS

ACCESSORY FRONT DOORS

FOR 19" PANEL SPACE

Width, $18^{15}/_{16}$".

Plain Type							Louvered Type			
	Net Each, Lots of							Net Each, Lots of		
Bud No.	1-2	3-4	5-7	Height	Fits Rack Top Open. Size, In.	Wt., Lbs.	Bud No.	1-2	3-4	5-7
60-2350	$79.00	$71.10	$63.20	$30^{3}/_{16}$"	$18^{5}/_{16} \times 11^{13}/_{16}$	11	60-2550	$88.30	$79.45	$70.65
60-2351	73.30	65.95	58.65	$24^{15}/_{16}$"	$18^{5}/_{16} \times 10$	9½	60-2551	82.80	74.50	66.25
60-2352	71.80	64.60	57.45	$23^{3}/_{16}$"	$18^{5}/_{16} \times 9^{7}/_{16}$	9	60-2552	79.95	71.95	63.95

ACCESSORY SIDES

Specify "L" for left side or "R" for right side, determined when facing front of rack. Size, 22" w. × $47^{55}/_{64}$" h. Sold in pairs only.

Plain Type						Louvered Type			
	Net Each Pair, Lots						Net Each Pair, Lots		
Bud No.	1-2	3-4	5-7	Fits Rack Top Open. Size, In.	Wt., Lbs.	Bud No.	1-2	3-4	5-7
60-2574	$154.80	$139.30	$123.85	$18^{5}/_{16} \times 11^{13}/_{16}$	11	60-2594	$170.10	$153.10	$136.10
60-2575	159.10	143.15	127.25	$18^{5}/_{16} \times 10$	9½	60-2595	174.80	157.35	139.85
60-2576	160.65	144.60	128.50	$18^{5}/_{16} \times 9^{7}/_{16}$	9	60-2596	177.95	160.15	142.35

ACCESSORY PERFORATED TOPS

FOR 19" PANEL SPACE

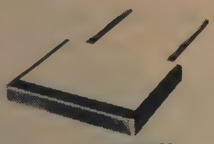
Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of		
					1	2	3-4
60-2372	$21^{15}/_{16}$"	$11^{13}/_{16}$"	$18^{5}/_{16} \times 11^{13}/_{16}$	3½	$24.40	$18.30	$16.45
60-2373	$21^{15}/_{16}$"	10"	$18^{5}/_{16} \times 10$	3½	23.20	17.40	15.65
60-2374	$21^{15}/_{16}$"	9⅜"	$18^{5}/_{16} \times 9^{7}/_{16}$	3¼	23.20	17.40	15.65

PLEXIGLAS® RACK DOORS

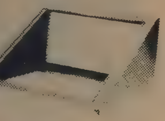
Plexiglas plastic doors to fit Series 20, Series 60, Series 2000 and Concorde racks. The ⅛" thick, smoke gray Plexiglas offers full visibility of all rack and panel instruments, plus operating equipment, yet all are behind a door, fully protected. The closed door is at least ¾" from front of panel, allowing clearance for protruding switches, knobs, etc. Plastic is embedded in polyurethane gasket to prevent rattling. Aluminum frame has a cross-section of $1^{13}/_{32}$" × 1⅛" and has magnetic catch. Door may be reversed for right or left-hand opening. Standard doors fit 19" panel space. When ordering, specify type of Bud cabinet for which door is intended.

®Reg. Rohm & Haas Co. TM.

Bud Number	Vert. Panel Space, Inches	Net Each, Lots of			
		1-2	3-4	5-7	8-10
V-9060A	21	$162.25	$146.00	$129.80	$121.75
V-9061A	31½	178.40	160.55	142.70	133.80
V-9062A	35	183.30	165.00	146.65	137.50
V-9063A	42	198.90	179.00	159.10	149.20
V-9064A	52½	206.70	186.00	165.35	155.00
V-9065A	61¼	232.05	208.85	185.65	174.00
V-9066A	70	256.40	230.80	205.15	192.30
V-9067A	78¾	269.10	242.20	215.30	201.80
FOR INCLINED RACKS					
V-9068A	29¾	$176.50	$158.85	$141.20	$132.35
V-9069A	24½	173.55	156.20	138.85	130.15
V-9070A	22¾	169.65	152.70	135.70	127.25

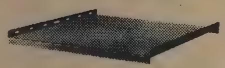


60-2360

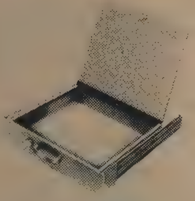


60-2364

60-2361



60-2380



60-2363

SERIES SIXTY DESK TOP

May be used in connection with any Series Sixty enclosure. Furnished completely assembled with antique white Formica* surface. Fastens to panel mounting rails by two pre-drilled channels. Will support in excess of 200 lbs. Surface $24^{1}/_{16}$" wide, 19½" deep, $3^{1}/_{16}$" high. **Specify Color:** Gray textured **(GT)** or royal blue textured **(RB)**.

Bud No.	Fits Series Sixty	Support Channel	Wt., Lbs.	Net Each, Lots of		
				1-2	3-4	5-7
60-2360	With 22" depth	21¼" long	22	$126.90	$114.20	$101.50
60-2362	With 25½" depth	24¾" long	23	130.80	117.70	104.65

*Registered Synthane Corp. trademark.

SERIES SIXTY TURRETS

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19" panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **RB** to number for royal blue textured; **GT** for gray textured.

Bud No.	Width	Depth	Height	Panel Space			Wt., Lbs.	Net Each, Lots of		
				Sloping	Bottom	Rear		1-2	3-4	5-7
60-2364	$22^{1}/_{16}$"	17⅞"	$12^{5}/_{16}$"	17½"	14"	8¾"	17	$106.00	$ 95.40	$ 84.80
60-2365	$22^{1}/_{16}$"	14⅜"	$10^{3}/_{16}$"	12¼"	10½"	7"	14	103.75	93.35	83.00
60-2366	$22^{1}/_{16}$"	$20^{13}/_{16}$"	14⅜"	21"	17½"	10½"	20	111.30	100.15	89.05

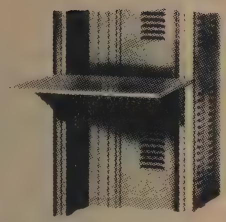
SERIES SIXTY DRAWER, DESK TOP, AND SHELF ACCESSORIES

No. 60-2368 Drawer: Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Will support heavy loads. Extends to full depth; stops prevent drawer from falling out. Slides easily attach to panel supporting rails. Silver anodized handles. Shipped completely assembled. Specify panel color: **WH** for white; **LG** for luster gray. **No. 60-2361 Sliding Desk Top:** Fits all Series Sixty racks. Has smooth Formica* surface for writing, servicing or inspection. Fits flush with front of unit. Usable area when fully extended, 11" × 17⅝". Occupies only 1¾" of panel height. Will support 50 lbs. Ball-bearing slide mechanism mounts directly in Series Sixty racks; brackets included to fit other Bud cabinets and consoles. Specify panel color: **WH** for white; **LG** for luster gray. **No. 60-2363 Desk Top Drawer:** Fits Series Sixty racks. Has Formica surface. Fits flush with front of unit. Hinged desk top on drawer holds small tools or parts. Special front-panel latch both locks and releases drawer or top as desired. Mounts to cabinet U-braces; slides travel on nylon rollers. Hardware supplied. **No. 60-2380 and 60-2381 Shelves:** Ideal for support of chassis, power supplies or other equipment; also may be used as base plate for bottom support. Of one-piece 16 gauge steel with flanged front and rear for extra strength and rigidity. Easily bolted to cabinet U-braces. Will support 200 lbs. Hardware supplied. Specify panel color: **WH** for white; **LG** for luster gray.

Bud No.	Size, Inches	Wt., Lbs.	Net Each, Lots of		
			1	2	3-4
60-2368†	$16^{9}/_{16}$ × $6^{5}/_{16}$ × $19^{3}/_{16}$ inside	28	$134.65	$134.65	$121.20
60-2361†	**17⅝ × 15⅛ with 1¾" × 19" panel**	9¼	68.05	68.05	61.25
60-2363†	$16^{11}/_{16}$ × 3½ × 15 inside; 19 × 3½ front panel	19	152.35	152.35	137.10
60-2380‡	17⅞ × 19¼" d.	8¼	27.60	20.70	18.65
60-2381‡	17⅞ w. × 22¾ d.	8½	28.90	21.70	19.55

*Synthane Corp. trademark. Add suffix **WH** for white; **LG** for gray. †May be used on Series 20, 60, 2000, Concorde, and Classic II. ‡ May be used on Series 20, 60, 2000, and Concorde.

SHELF ASSEMBLY



Immediately adds extra utility to a standard rack at very little cost. Useful as a desk, work space, etc. Gray or black rinkletex finish or gray hammertone finish will match all standard Bud rack finishes. Can't fall off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed but can be attached over panel if desired. Slides welded to bottom of shelf; mounting brackets slip into slides and fasten with two screws. All necessary hardware furnished. Formed of 16 gauge steel; ⅝" flange on all three sides; overall height, 7⅛". Brackets are 7" high. Specify gray textured **(GT)** or royal blue textured **(RB)** finish.

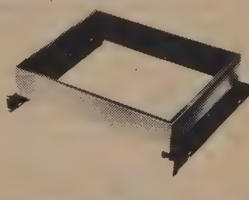
Bud No.	Size, Inches D. × W.	Wt., Lbs.	Net Each, Lots of		
			1	2-24	25-34
SA-1719	16 × 22	13¼	$40.90	$36.80	$32.70
SA-1720	20 × 22	15¼	43.40	39.05	34.70

RACK SHELVES

Heavy gauge steel shelves with 1" flange for rigidity and strength. Mount on chassis supporting angles in rack to hold power supplies, modulators, etc. Width 19". Smooth black finish.

Bud No.	Depth, Inches	Weight, Lbs.	Net Each, Lots of		
			1	2-49	50-99
CB-1976	15	6	$19.80	$16.55	$14.90
CB-1977	12	5	16.00	13.35	12.00

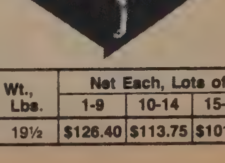
SLIDING DRAWER ASSEMBLY



Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base. Bail bearing suspension for easy sliding. Slide rail fastens securely to chassis, slides in and out easily on channeled ball bearings. Chassis, slide and plate finished in luster gray. Will support up to 30 lbs. **Chassis Size:** 16¾" × 14" × 3". Drawer plate fastens to top or bottom.

Bud No.	Description	Wt., Lbs.	Net Each, Lots of		
			1	2-24	25-34
SD-1717	Sliding drawer	5	$41.65	$41.65	$37.50
TP-1718	Drawer plate	1½	13.00	10.85	9.75

DRAWER WITH ADJUSTABLE SLIDES



Fits any cabinet or cabinet rack with 19" panel space. Slide bracket adjustable 16½" to 24¼" to fit any cabinet with depth 17" to 25½". Fastens by bracket to panel mounting rail in front and rear of cabinet. Nylon rollers for smooth movement. Hardware supplied. Specify color when ordering: Add suffix **WH** for white textured; **LG** for luster gray.

Bud No.	Inside Size, Inches	Wt., Lbs.	Net Each, Lots of		
			1-9	10-14	15-19
D-1721	16⅝ " 6⅜ × $16^{3}/_{16}$	19½	$126.40	$113.75	$101.10

BUD Relay Racks

DELUXE RELAY RACKS

High quality relay racks made of 16-gauge steel with $^{7}/_{64}$" panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners give streamlined appearance. Base constructed with four special supports so that casters may be applied to base directly for mobility. Racks are 22" wide to accept all standard 19" panels.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix **RB** for royal blue textured; **LG** for luster gray.

DELUXE RELAY RACKS WITH 19" WIDE PANEL SPACE

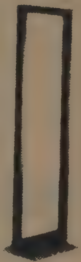
Bud No.	Size, Inches			Wt., Lbs.	Net Each, Lots of		
	Height Overall	Depth Overall	Panel Space		1-9	10-14	15-19
CR-1774	$42\,/_{16}$	17⅛	36¾	82	$210.90	$189.80	$168.70
CR-1771	$47^{5}/_{16}$	17⅛	42	92	225.85	203.25	180.70
CR-1772	$66^{9}/_{16}$	17⅛	61¼	115	278.70	250.85	222.95
CR-1780	$75^{5}/_{16}$	17⅛	70	125	316.15	284.55	252.90
CR-1773	$82^{5}/_{16}$	17⅛	77	135	331.90	298.70	265.50
CR-2074	$42^{1}/_{16}$	22⅛	33¾	98	226.20	203.60	180.95
CR-2071	$47^{5}/_{16}$	22⅛	42	102	264.80	238.30	211.85
CR-2072	$66^{9}/_{16}$	22⅛	61¼	137	320.90	288.80	256.70
CR-2075	$75^{5}/_{16}$	22⅛	70	148	326.15	293.55	260.90
CR-2073	$82^{5}/_{16}$	22⅛	77	159	380.50	342.45	309.40

PRESTIGE BALL CORNER RACKS

Attractive, practical housing for permanent or mobile instrumentation. Standard Prestige relay rack consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement at bottom and two screws at top. Sides easily removable for access. Drilled and tapped panel mounting rails on all four vertical members of frame. Doors mount from either left or right side. Slotted base takes ball-cornered side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Inside clearance 21½" × 21⅛". Outside dimensions $23^{1}/_{16}$" × 24⅛". Knockout holes provided for attaching two or more units together. Units take Bud SD-1717 sliding drawer assembly or 60-2368 drawer. Shipped knocked-down, with necessary assembly hardware. Luster gray **(LG)** finish only. **Furnished with adjustable panel mounting rails.**

Bud No.	Size, Inches		Net Each, Lots of		
	Overall Height	Panel Space	1-9	10-14	15-19
CR-2280	$66^{9}/_{16}$	61¼	$475.95	$428.35	$380.75
CR-2281	$71^{13}/_{16}$	66½	486.80	438.10	389.45
CR-2282	$82^{5}/_{16}$	77	547.45	492.70	437.95

TELEPHONE-TYPE RELAY RACKS



Heavy Duty Model RR-1265: Two 3½" × 4⅞ × ¼", 20⅜" long angles form base. Steel channels are 3" × 1⅜", $71^{29}/_{32}$" long. Cross bars are ⅛" × $1^{9}/_{16}$" angles. Panel holes tapped 12-24 with W.E. space. Black finish only. Usually bolted to floor.

Standard Models: 3" channels and crossbars of $^{7}/_{64}$" steel. Base has chassis type bottom with side angles. Base drilled for RC-7756 casters. Suffix **LG** for luster gray; **BT** for black textured.

FOR 19" WIDE PANELS

Bud No.	Size, Inches		Net Each, Lots of		
	Overall Height	Panel Space	1-9	10-14	15-19
RR-1263	35⅝	31½	$ 80.50	$ 72.45	$ 64.40
RR-1363	40⅞	36¾	85.10	76.60	68.10
RR-1264	70⅝	66½	100.05	90.05	80.05
RR-1364	75⅝	71¾	107.30	96.55	85.85
RR-1366	81⅛	77	109.65	98.70	87.70
RR-1265	72¼	66½	141.55	127.40	113.25

DELUXE TELEPHONE-TYPE RELAY RACKS

Sturdy open rack with extra strength and greater capacity. Upright U-member is unitize-welded with ventilation provided at top. Two panel-mounting rails, at front and rear, tapped 10-32 with W.E. spacing. Made of 12 ga. steel throughout. Chassis-type base drilled for RC-7756 casters. Triangular brackets hold uprights to base; holes provided on both sides for bolting racks together in "Add-A-Rack" manner. Add suffix **LG** for luster gray; **BT** for black textured. Racks have 20⅞" × 26" base and take 19" wide panels.

Bud No.	Size, Inches		Net Each, Lots of		
	Overall Height	Panel Space	1-9	10-14	15-19
RR-1367	64⅝	61¼	$210.40	$189.35	$168.30
RR-1368	73⅜	70	234.65	211.20	187.70
RR-1369	80⅜	77	242.55	218.30	194.05

TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19" panels. Shipped knocked down. Base is 12" × 20⅜". Specify Luster gray **(LG)** or black textured **(BT)**.

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of		
	Height, Overall	Panel Space		1	2-14	15-24
RR-1248	24	21	14¼	$50.90	$45.80	$40.70
RR-1249	31	28	16¾	57.20	51.50	45.75

VTR SYSTEM CABINET AVS-500

Compact, easily-movable unit provides a convenient, one-station VTR center for a wide range of audio-visual (AV) applications. Unit can also be used to effectively house any AV system. Upper section designed to house video tape recording equipment; TV monitor and video tape recorder deck. Top shelf holds television monitor; clear inside dimensions, 18" h. × 26" w. × 22" d. Lower shelf holds video tape recording deck; clear inside dimensions, 11" h. × 26" w. × 22" d. Louvered rear panel is notched for power cord entry. Lower section provides deep, two-shelf storage for video tape cassettes. Sides, top, bottom, dividers and shelf assemblies are constructed of 16-gauge steel. Door assemblies and rear panels are 18-gauge steel. Shelves in upper section are reinforced to support the heavy equipment. Front doors bi-fold to a 270-degree opening, affording maximum viewing area when VTR system is in operation. Flush-mounted cam locks on all doors. Four heavy-duty casters and hardware included. Delivered assembled. **Finish:** Black textured (BT). **Weight:** 255 lbs.

No. AVS-500 VTR System Cabinet—Net Each.................................. **$685.60**

This shelf slides out.

BUD Relay Racks Panels, Boxes, Cases

STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels, ⅛″ or $^{3}/_{16}$″ thick, in both 19″ and 24″ widths. Finishes: White textured **(WH)** or luster gray **(LG)**. Aluminum panels 5005 H-36 or 2024 T-3 alloy.

	24″ WIDE PANELS				19″ WIDE PANELS			
	⅛″ 5005 H-36 ALUMINUM				$^{3}/_{16}$″ 5005 H-36 ALUMINUM			
Ht., In.	Bud No.	Net Each, Lots of 1	2-49	50-99	Bud No.	Net Each, Lots of 1	2-49	50-99
1¾	PA-2401	$ 9.60	$ 8.00	$ 7.20	PA-3101	$ 9.40	$ 7.85	$ 7.05
3½	PA-2402	12.50	10.45	9.40	PA-3102	13.40	11.20	10.10
5¼	PA-2403	16.80	14.05	12.65	PA-3103	17.70	14.80	13.30
7	PA-2404	19.40	16.20	14.60	PA-3104	21.70	18.10	16.30
8¾	PA-2405	24.30	20.30	18.25	PA-3105	25.70	21.45	19.30
10½	PA-2406	29.50	24.65	22.20	PA-3106	32.60	27.20	24.50
12¼	PA-2407	32.30	27.80	25.00	PA-3107	35.00	31.15	28.05
14	PA-2408	34.75	33.50	30.15	PA-3108	37.50	34.75	31.30
15¾	PA-2409	36.15	36.15	32.55	PA-3109	40.40	40.40	36.35
17½	PA-2410	37.85	37.85	34.05	PA-3110	44.25	44.25	39.85
19¼	PA-2411	41.40	41.40	37.25	PA-3111	48.50	48.50	43.65
21	PA-2412	45.60	45.60	41.05	PA-3112	52.85	52.85	47.55

19″ WIDE ⅛″ STEEL AND ALUMINUM PANELS

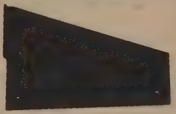
	11 GAUGE STEEL				⅛″ 2024 T-3 ALUMINUM				⅛″ 5005 H-36 ALUMINUM				
Ht., In.	Bud No.	Net Each, Lots of 1	2-49	50-99	Bud No.	Net Each, Lots of 1	2-49	50-99	Bud No.	Net Each, Lots of 1	2-49	50-99	Ht., In.
1¾	PS-1250	$ 5.20	$ 4.35	$ 3.90	PA-1131	$ 7.90	$ 6.60	$ 5.95	PA-1101	$ 6.20	$ 5.20	$ 4.70	1¾
3½	PS-1251	6.30	5.25	4.38	PA-1132	11.40	9.50	8.55	PA-1102	8.40	7.00	6.30	3½
5¼	PS-1252	9.90	8.25	7.45	PA-1133	17.30	14.45	13.00	PA-1003	11.30	9.45	8.50	5¼
7	PS-1253	10.80	9.00	8.10	PA-1134	21.80	18.20	16.40	PA-1104	14.20	11.85	10.65	7
8¾	PS-1254	12.30	10.25	9.25	PA-1135	26.00	21.70	19.55	PA-1105	16.80	14.05	12.65	8¾
10½	PS-1255	13.80	11.50	10.35	PA-1136	30.80	25.70	23.15	PA-1106	20.00	16.70	15.05	10½
12¼	PS-1256	15.40	12.85	11.55	PA-1137	35.60	29.75	26.80	PA-1107	23.00	19.20	17.30	12¼
14	PS-1257	18.20	15.20	13.70	PA-1138	36.50	33.90	30.50	PA-1108	26.60	22.20	20.00	14
15¾	PS-1258	19.30	17.80	16.00	PA-1139	37.40	36.40	32.75	PA-1109	29.30	24.45	22.00	15¾
17½	PS-1259	21.30	17.80	16.00	PA-1140	40.90	40.90	36.80	PA-1110	32.10	26.80	24.10	17½
19¼	PS-1260	23.20	21.05	18.95	PA-1141	45.75	45.75	41.20	PA-1111	33.80	29.05	26.15	19¼
21	PS-1261	26.40	22.05	19.85	PA-1142	50.35	50.35	45.30	PA-1112	34.50	32.50	29.25	21

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on front side with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard panel notching.

	⅛″ ALUMINUM				$^{3}/_{16}$″ ALUMINUM			
Ht., In.	Bud No.	Net Each, Lots of 1	2-49	50-99	Bud No.	Net Each, Lots of 1	2-49	50-99
1¾	SFA-1831	$ 5.40	$ 4.50	$ 4.05	SFA-3161	$10.00	$ 8.35	$ 7.50
3½	SFA-1832	7.80	6.50	5.85	SFA-3162	13.90	11.60	10.45
5¼	SFA-1833	10.00	8.35	7.50	SFA-3163	18.30	15.30	13.75
7	SFA-1834	12.90	10.75	9.70	SFA-3164	23.10	19.30	17.35
8¾	SFA-1835	14.10	11.75	10.60	SFA-3165	27.10	22.65	20.40
10½	SFA-1836	18.30	15.30	13.75	SFA-3166	31.80	26.55	23.90
12¼	SFA-1837	21.20	17.70	15.95	SFA-3167	36.00	33.55	30.20
14	SFA-1838	22.70	18.95	17.05	SFA-3168	38.35	38.35	34.50
15¾	SFA-1839	26.90	22.45	20.20	SFA-3169	42.85	42.85	38.55
17½	SFA-1840	32.90	24.70	22.25	SFA-3170	44.75	44.75	40.30
19¼	SFA-1841	33.90	27.45	24.70	SFA-3171	52.20	52.20	47.00
21	SFA-1842	35.20	30.00	27.00	SFA-3172	56.35	56.35	50.70

CHASSIS MTG. BRACKETS



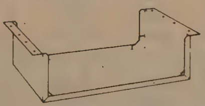
Mounts chassis to panels; supports entire chassis weight. Heavy gauge steel 6½″ high, cut away at bottom to mount flush to panel. Black finish.

Bud No.	Depth, In.	Net per Pair, Lots of 1	2-99	100-199
MB-458	8	$ 8.30	$ 6.95	$6.25
MB-448	10	9.70	8.10	7.30
MB-459	11	9.00	7.50	6.75
MB-449	12	10.90	9.10	8.20
MB-460	13	12.40	10.35	9.30
MB-450	10	11.80	9.85	8.85
MB-451*	13	13.10	10.95	9.85

*8½″ high for chassis height of 4″.

ALUMINUM PANEL CHASSIS

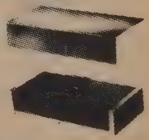
Fastens to mounting rails. Can be used as a vertical chassis where depth is limited or where front service is required. Constructed of .060″ aluminum alloy. Natural finish.



Bud No.	Height, Ins.	Weight, Lbs.	Net Each, Lots of 1	2-49	50-99
CB-1370	1¾	¾	$ 9.40	$ 7.85	$ 7.05
CB-1371	3½	1¼	10.50	8.75	7.90
CB-1372	5¼	1½	12.10	10.10	9.10
CB-1373	7	2	14.50	12.10	10.90
CB-1374	8¾	2¼	16.80	14.05	12.65
CB-1375	10½	2¾	19.50	16.30	14.65
CB-1376	12¼	3	21.70	18.10	16.30
CB-1377	14	3¼	24.20	20.20	18.20

CONVERTA-BOXES

Versatile enclosure combines welded base and two-sided cover. Components or controls are easily mounted to any surface of the unit. All contents easily accessible. Cover and base are fastened by self-tapping screws. Rigid 20 ga. cadmium-plated steel.



Bud No.	Size, Inches H. × W. × D.	Wt., Lbs.	Net Each, Lots of 1	2-49	50-99
CU-341	1½ × 4 × 3	½	$7.90	$6.60*	$5.95†
CU-452	2 × 5 × 4	¾	8.00	6.70*	6.05†
CU-482	2 × 8 × 4	1¼	9.20	7.70	6.95
CU-592	2½ × 9½ × 5	1¾	10.00	8.35	7.50
CU-622	2½ × 12 × 6	2¼	12.00	10.00	9.00
CU-712	2½ × 15 × 7	3	15.00	12.55	11.30

*Lots of 2-99; †Lots of 100-199.

TRANSICASE PORTABLE INSTRUMENT CASE

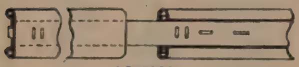
Handsome, portable instrument case with unlimited applications. Contour design fabricated of .040″ aluminum with flush-fitting aluminum panel. Lid protects instruments in case; mounted on two slide-off, bright nickel-plated hinges with toggie catches. Rubber feet at both base and back; metal plugs supplied to fill holes if rubber feet are not used. Black plastic handle. **Specify Color:** Add suffix **RB** for royal blue textured; **GT** for gray textured.

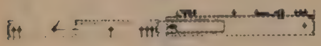
Bud No.	Inside Panel Size, Inches	Clear Internal Space, Inches Below Panel	Above Panel	Internal Aperture, Inches	Overall Size, Inches W. × D. × H.	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
TC-300	9 × $5^{15}/_{16}$	4⅜	$1^{7}/_{16}$	8 × $5^{31}/_{32}$	$10^{1}/_{16}$ × 7 × 6	2½	$67.45	$60.70	$53.95
TC-301	$10^{7}/_{16}$ × 7¼	4⅜	$1^{7}/_{16}$	$9^{7}/_{16}$ × $7^{9}/_{32}$	11½ × 8¼ × 6	3¼	69.45	62.50	55.55
TC-302	$15^{7}/_{16}$ × $7^{15}/_{16}$	5⅞	$1^{7}/_{16}$	$10^{15}/_{16}$ × $7^{31}/_{32}$	13 × 9 × 7½	4	79.50	71.55	63.60
TC-303	$19^{1}/_{16}$ × 7	5⅞	$1^{7}/_{16}$	$14^{7}/_{16}$ × $7^{31}/_{32}$	16½ × 9 × 7½	4¾	86.60	77.95	69.30
TC-304	19 × 7	$7^{5}/_{16}$	$1^{7}/_{16}$	$18^{1}/_{16}$ × $7^{1}/_{32}$	20⅛ × 8 × 9	6¾	96.55	86.90	77.25

Slides and Blowers

PRECISION SLIDING MECHANISMS

AS-5060


AS-5020


AS-5080

All steel commercial design provides a wide variety of models for a wide range of purposes. Provides smooth, light telescoping movement with unsurpassed reliability and minimal wear. **Specifications:** Slide members and component parts made from work hardened, cold rolled steel; bearings are nickel-plated carburized steel. Electrozinc plate finish; grease is high-low temperature type. **Mounting:** Units require mounting brackets as specified in table below. One pair of front and one pair of rear brackets needed for each slide for attachment of slides to rails. One each NAS-5110 rail bar nut used with each mounting bracket.

2 MEMBER, ¾ EXTENSION FRICTION DISCONNECT

Bud Number	Slide Length, Inches	Slide Travel, Inches	Load Rating, Lbs.	Net per Pair, Lots of 1	2-4	5-9
AS-5000	12	8⅞	140	$21.15	$21.15	$19.05
AS-5001	16	11⅞	120	24.45	24.45	22.00
AS-5002	20	14⅞	92	26.80	26.80	24.10

POSITIVE STOP

AS-5060	12	8⅞	108	$19.30	$19.30	$17.35
AS-5061	16	11⅞	95	21.00	21.00	18.90
AS-5062	20	14⅞	82	21.90	21.90	19.70

3 MEMBER, FULL EXTENSION POSITIVE STOP

AS-5020	12	12.88	175	$50.25	$50.25	$45.25
AS-5021	16	16.88	160	55.75	55.75	50.20
AS-5022	20	20.88	142	60.25	60.25	54.25

POSITIVE W/FRONT DISCONNECT, ⅜ SIDE SPACE

AS-5040	12	11.88	120	$66.45	$66.45	$59.80
AS-5041	16	15.88	108	72.00	72.00	64.80
AS-5042	20	19.88	92	76.90	76.90	69.20

DUAL MEMBER W/DRAWER SECTION, FULL EXTENSION AND LIFT-OFF DISCONNECT

Three-piece slide, recommended for light loads. Positive stop at full extension Front disconnect allows removal and reinsertion of chassis members without using tools. Full extension. ⅜" side space.

AS-5080-A	12	12.88	120	$62.85	$62.85	$56.55
AS-5081-A	16	16.88	108	64.15	64.15	57.75
AS-5082-A	20	20.88	92	70.50	70.50	63.45

MOUNTING BRACKETS

Bud No.	Description	Net Each, Lots of 1	2-4	5-9	Bud No.	Description	Net Each, Lots of 1	2-4	5-9
BAS-5100	Front bracket*	$3.40	$2.55	$2.30	BAS-5103	Rear bracket**	$3.40	$2.55	$2.30
BAS-5101	Rear bracket*	3.40	2.55	2.30	NAS-5110	Bar nut	3.40	2.55	2.30
BAS-5102	Front bracket**	3.40	2.55	2.30	SB-5107	Adapter kit†	12.70	9.50	8.55

*For use with AS-5000, AS-5060, AS-5020 Series. **For use with AS-5040, AS-5080 Series. †For use with Series 2000, Series 60, Series 20, Classic and Concorde cabinets.

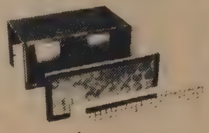
POWER OUTLET STRIPS

Strips snap into adjustable mounting clips. Grounding type, 15 amp, 125 Volt receptacles. Circuit breaker is 15 amp thermal type with reset. Models 6 and 66 have 14 gauge, 3-wire power cord; others have 12 gauge solid conductor. All have 6-foot cords. All components UL approved. **Surge Suppressor:** When exposed to high energy voltage, the surge suppressor inpedance changes from a high standby value to a very low conducting value, thus clamping the voltage level to a safe value and protecting voltage-sensitive components against damage.

Bud No.	No. of Outlets	Length, Inches	Net Each, Lots of 1-4	15-24	25-34
POS-4	4	17½	$60.70	$54.65	$48.55
POS-6	6	12¼	45.00	40.50	36.00
POS-7	7	48	63.90	57.50	51.10
POS-9	9	60	70.20	63.20	56.15
POS-11	11	72	76.60	68.95	61.30
POS-66*	6	12¼	61.75†	55.60‡	49.40§

*Has surge-supression components. †Lots of 1-49; ‡Lots of 50-99; §Lots of 100-149.

TRANS-AIRE BLOWER



Brings in fresh air or exhausts heated air to cool equipment in an enclosed rack or cabinet. May be mounted to rails of standard rack or cabinet. Use of Bud Chassis Support Angles is recommended. Rubber-mounted motor. Thermal overload protection. Disposable fiberglass filter is removable without disturbing the blower. Guaranteed for 20,000 hours of continuous service.

Bud No.	Size† D. × H.	Air c.f.m. High	Low	Motor Watts	rpm	Filters Bud No.
B-23A	12" × 3½"	125	100	125/100	1450/1250	BF-24
B-25A	14½" × 5¼"	375	200	375/200	1420/1075	BF-26
B-27A	14½" × 7"	550	300	550/350	1350/1150	BF-28
B-50*	$6\frac{13}{32}$" × 3½"	150	....	80	3150	BF-24
B-52*	$9\frac{1}{32}$" × 5¼"	150	....	80	3000	BF-53
B-54*	$10\frac{3}{16}$" × 7"	300	....	60	1550	BF-55

*Brings in fresh air only. †All for standard 19" rack.

TRANS-AIRE BLOWER AND FILTER PRICING

Bud No.	Net Each, Lots of 1-9	10-14	15-19	Bud No.	Net Each, Lots of 2-49	50-99	100-149
B-23A	$211.65	$190.50	$169.30	BF-24	$3.60	$3.25	$2.90
B-25A	241.45	217.30	193.15	BF-26	4.05	3.65	3.25
B-27A	272.05	244.85	217.65	BF-28	3.25	2.95	2.60
B-50	195.75	176.20	156.60	BF-53	2.85	2.55	2.30
B-52	198.15	178.35	158.50	BF-55	3.00	2.70	2.40
B-54	234.90	211.40	187.90				

"TEM-STAT" TEMPERATURE CONTROLS

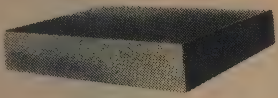
Prevent shut-downs caused by over-heating of electronic or electrical equipment in enclosures. Unit reacts instantly to gradual or sudden temperature changes. Temperature accuracy, ± 8° F. Contacts remain closed until there is a 10° ± 5° F drop in temperature. Can also be used for temperature control in convection and radiant heating applications.

For easy attachment. UL Recognized. Small size, $2\frac{15}{16}$" × 1" w. × $1\frac{7}{32}$" d., suitable for limited space applications. **UL Rating:** 8 amps, full load, 115 VAC (48 amps, locked rotor). 100,000 cycles motor rating; derate 50% for 230 VAC. Full load 13.8 amps 120 VAC (82.8 amps, locked rotor). 6,000 cycles motor rating; derate 50% for 240 VAC. Pilot duty, 125 VA at 115 230 VAC; or, 250 mV or more.

Bud No. TS-15—80°170° F. Net Each...$15.70
Net Each, Lots of: 2-9.......................... **$11.80**; 10-14.......................... **$10.60**

Chassis Bases

ALUMINUM CHASSIS BASES



Each chassis is made from a single sheet of metal. All corners are reinforced and spot welded. Natural finish aluminum alloy 5005 H-14. All four sides are folded at the bottom for added rigidity and strength. Natural finish bottom plates available to fit all sizes.

Bud No.	Size, Inches D. × W. × H.	Ga.	Wt., Lbs.	Net Each, Lots of		
				1	2-49	50-99
AC-1401	2½ × 4½ × 1	18	⅛	$ 4.60	$ 3.85	$ 3.45
AC-1402	3½ × 4½ × 1	18	⅛	4.80	4.00	3.60
AC-1403	3½ × 5½ × 1	18	⅛	4.80	4.00	3.60
AC-1404	4 × 5 × 2	18	¼	5.50	4.60	4.15
AC-1405	4 × 6 × 1½	18	¼	5.00	4.20	3.80
AC-430	4 × 6 × 3	18	⅓	6.30	5.25	4.75
AC-431	4 × 6 × 2	18	¼	5.30	4.45	4.00
AC-1406	4 × 8 × 2	18	¼	6.60	5.50	4.95
AC-432	4 × 17 × 3	16	1	10.50	8.75	7.90
AC-1407	4½ × 8 × 1½	18	¼	6.20	5.20	4.70
AC-402	5 × 7 × 2	18	⅓	5.50	4.60	4.15
AC-429	5 × 7 × 3	18	½	6.60	5.50	4.95
AC-1408	5 × 9 × 1½	18	⅓	6.20	5.20	4.70
AC-1409	5 × 9½ × 1½	18	⅓	6.20	5.20	4.70
AC-403	5 × 9½ × 2	18	½	6.00	5.00	4.50
AC-401	5 × 9½ × 2½	18	½	7.10	5.95	5.35
AC-421	5 × 9½ × 3	18	⅝	7.70	6.45	5.80
AC-404	5 × 10 × 3	18	⅝	7.70	6.45	5.80
AC-422	5 × 13 × 3	18	¾	8.60	7.20	6.50
AC-1410	5 × 13½ × 2½	18	¾	8.10	6.75	6.10
AC-1411	5½ × 5½ × 1	18	⅕	5.40	4.50	4.05
AC-1412	5½ × 9½ × 1½	18	⅓	6.20	5.20	4.70
AC-1413	6 × 8 × 2	18	⅓	6.30	5.25	4.75
AC-1414	6 × 14 × 3	16	1⅛	11.20	9.35	8.40
AC-433	6 × 17 × 3	16	1¼	13.00	10.85	9.75
AC-405	7 × 7 × 2	18	½	6.00	5.00	4.50
AC-406	7 × 9 × 2	18	½	6.50	5.45	4.90
AC-407	7 × 11 × 2	18	⅝	7.60	6.35	5.70
AC-408	7 × 12 × 3	18	⅞	9.30	7.75	7.00
AC-409	7 × 13 × 2	18	¾	7.70	6.45	5.80
AC-1415	7 × 15 × 2	16	1	12.10	10.10	9.10
AC-411	7 × 15 × 3	16	1¼	12.10	10.10	9.10
AC-1416	7 × 17 × 2	16	1⅛	14.40	12.00	10.80
AC-1417	7 × 17 × 2½	16	1¼	14.90	12.45	11.20
AC-423	7 × 17 × 3	16	1½	13.00	10.85	9.75
AC-1418	8 × 10 × 2½	18	1	9.40	7.85	7.05
AC-1419	8 × 12 × 2½	16	1⅛	11.20	10.10	9.10
AC-424	8 × 12 × 3	16	1¼	11.00	9.20	8.30
AC-425	8 × 17 × 2	16	1½	11.40	9.50	8.55
AC-412*	8 × 17 × 3	16	1¾	13.40	11.20	10.10
AC-1420	8½ × 15 × 3	16	1½	12.70	10.60	10.80
AC-1421	9 × 15 × 3	16	1½	14.40	12.00	10.80
AC-413	10 × 12 × 3	16	1¼	13.40	11.20	10.10
AC-414	10 × 14 × 3	16	1½	13.40	11.20	10.10
AC-415*	10 × 17 × 2	16	1½	12.70	10.60	9.55
AC-416*	10 × 17 × 3	16	1¾	13.80	11.50	10.35
AC-427*	10 × 17 × 4	14	2½	20.70	17.30	15.55
AC-1422	10 × 17 × 5	16	2¼	29.40	24.55	22.10
AC-1423	10 × 23 × 3	14	2¾	23.00	19.20	17.30
AC-426*	11 × 17 × 2	14	2	16.30	13.60	12.25
AC-417*	11 × 17 × 3	14	2¼	17.60	14.70	13.25
AC-1424	12 × 12 × 3	16	1½	17.80	14.85	13.35
AC-1425	12 × 17 × 2	16	1⅝	16.80	14.05	12.65
AC-418*	12 × 17 × 3	14	2¼	17.90	14.95	13.45
AC-419*	13 × 17 × 2	14	2⅝	16.60	13.85	12.45
AC-420*	13 × 17 × 3	14	2¾	19.50	16.30	14.65
AC-428*	13 × 17 × 4	14	3¼	23.80	19.85	17.85
AC-1426	13 × 17 × 5	14	3½	33.70	28.15	25.35
AC-1427	14 × 17 × 3	14	2¾	24.50	20.45	18.40
AC-1428	15 × 17 × 4	14	3¼	33.70	28.15	25.35
AC-1429	15 × 17 × 6	14	4⅛	38.85	38.85	34.95
AC-1430	17 × 17 × 3	14	3¼	28.60	23.90	21.50
AC-1431	17 × 17 × 4	14	3⅞	31.90	26.65	24.00

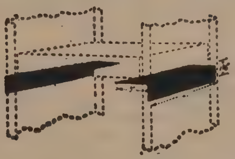
*Punched to accommodate chassis mounting brackets.

CHASSIS BOTTOM PLATES

Protects wiring or components, or use as dust cover on underside of chassis. Sizes to fit all standard size chassis.

Bud No.	For Chassis Size		Wt., Oz.	Net Each, Lots of		
	Width	Length		1	2-99	100-199
BPA-1501	2½	4½	1	$ 2.30	$1.90	$1.70
BPA-1502	3½	4½	1	2.40	2.00	1.80
BPA-1503	3½	5½	2	2.40	2.00	1.80
BPA-1504	4	5	2	2.40	2.00	1.80
BPA-1505	4	6	2	2.60	2.15	1.95
BPA-1506	4	8	2	3.30	2.75	2.50
BPA-1532	4	17	4	3.30	2.75	2.50
BPA-1507	4½	8	3	3.50	2.90	2.60
BPA-1589	5	7	2	2.80	2.35	2.10
BPA-1508	5	9	3	2.70	2.25	2.05
BPA-1590	5	9½	2	2.80	2.35	2.10
BPA-1591	5	10	4	2.80	2.35	2.10
BPA-1509	5	13	4	4.50	3.75	3.40
BPA-1510	5	13½	4	4.50	3.75	3.40
BPA-1511	5½	5½	2	2.70	2.25	2.05
BPA-1512	5½	9½	3	3.30	2.75	2.50
BPA-1513	6	8	3	3.50	2.90	2.60
BPA-1514	6	14	5	4.50	3.75	3.40
BPA-1515	6	17	6	5.40	4.50	4.05
BPA-1592	7	7	3	2.80	2.35	2.10
BPA-1593	7	9	4	3.60	3.00	2.70
BPA-1594	7	11	4	3.70	3.10	2.80
BPA-1595	7	12	5	4.20	3.50	3.15
BPA-1596	7	13	8	4.80	4.00	3.60
BPA-1516	7	15	8	4.80	4.00	3.60
BPA-1517	7	17	8	4.80	4.00	3.60
BPA-1518	8	10	4	4.60	3.85	3.45
BPA-1519	8	12	6	5.80	4.85	4.35
BPA-1520	8	17	8	5.90	4.95	4.45
BPA-1521	8½	15	8	7.00	5.85	5.25
BPA-1522	9	15	8	7.30	6.10	5.50
BPA-1523	10	12	8	5.80	4.85	4.35
BPA-1524	10	14	8	5.80	4.85	4.35
BPA-1597	10	17	10	6.20	5.20	4.70
BPA-1525	10	23	14	8.30	6.95	6.25
BPA-1526	11	17	12	6.00	5.00	4.50
BPA-1527	12	12	10	6.00	5.00	4.50
BPA-1528	12	17	12	7.70	6.45	5.80
BPA-1598	13	17	14	8.50	7.10	6.40
BPA-1529	14	17	15	7.90	6.60	5.95
BPA-1530	15	17	16	10.90	9.10	8.20
BPA-1531	17	17	17	11.00	9.20	8.30

CHASSIS SUPPORTING ANGLES

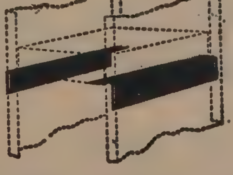


Relieves panels by distributing weight to side of rack. 3" × 1⅜" × 7/64" steel. Black primer finish. Available in pairs only.

Bud No.	Length, Inches	Weight, Lbs.	Net per Pair, Lots of		
			1	2-49	50-99
SA-1349	14½	3½	$11.90	$9.95	$8.95
SA-1350	12	3	11.90	9.95	8.95

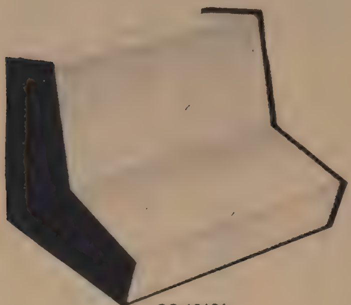
PRESTIGE SUPPORTING ANGLES

Attach to rails in Prestige relay racks. Slotted for vertical adjustment. Extend from front to rear to accept full-depth chassis. Support heaviest loads. Black primer finish. Available in pairs only.



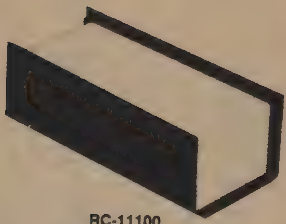
Bud No.	Size, Inches	Weight Lbs.	Net Per pair, Lots of		
			1	2-49	50-99
CE-2219	21 × 3 × 2¾	6½	$19.30	$16.10	$14.50

BUD Instrument Cabinets


SC-13101

SC-13100

HC-14100


RC-11100

SC-12100

SC-12101

COMPUCAB SERIES

"Now Look" practical and adaptable to many types of instruments. New keyboard look matches today's advanced digital technology concept. All aluminum construction combines beauty, utility and sturdiness. No fasteners are visible on panel area. Shipped assembled. **Material:** Base, ⅛" aluminum; cover and back, 0.057" aluminum; feet, rubber, self-adhesive; 10-32 screws. **Finish:** Base, black textured (BT); cover, smooth white. **Assembled** with 6-32 screws. **Rear Panel:** One ⅞" dia. knockout centered. SC-13100; two ⅞" dia. knockouts and four sets of louvers, each set 2" w. × 1¾" h., SC-13101.

Bud No.	Overall Size, Inches W. × D. × H.	Net Each, Lots of		
		2-14	15-24	25-34
SC-13100	10 × $8^{11}/_{16}$ × $5^{11}/_{32}$	$34.80	$31.30	$27.85
SC-13101*	14 × 10¾ × $9^{61}/_{64}$	71.15	64.05	56.90

*Has removable rear panel.

SLOPE SERIES

Sloping front enclosures for excellent visibility of panel mounted components. Modern concept in enclosures embodying clean vertical and horizontal lines. Highly desirable where quick access to the interior is needed. One-piece body is easily detached to provide access to interior components. No exposed fasteners. **Material:** Base, ⅛" aluminum; cover, 0.057" aluminum; feet, rubber, self-adhesive. **Finish:** Cover, smooth white; base, black texture (BT). **Assembled** with 6-32 screws. **Rear Panel:** Single knockout, SC-12100; two knockouts, SC-12101. **Front Panel:** 20° Slope.

Bud No.	Overall Size, Inches		Net Each, Lots of		
	Size, Inches W. × D. × H.	Top Depth	1	2-24	25-34
SC-12100	5 × 5 × 4½	$3^{1}/_{16}$	$18.70	$15.60	$14.05
SC-12101	12 × 10 × 3¼	$8^{7}/_{16}$	35.00	32.50	29.25

LINEAR SERIES

Highly practical enclosures offer solutions to the designer of electronic subsystems and instrumentation. Attractive and functional; one-piece body can be removed to expose the entire interior. No visible fasteners. With self-adhesive rubber feet. **Material:** Base, ⅛" aluminum; cover, 0.057" aluminum. **Finish:** Cover, smooth white; base, black texture (BT). **Assembled** with 6-32 screws. **Rear Panel:** Single knockout centered. RC-11100; two knock-outs, RC-11101.

Bud No.	Overall Size, Inches W. × D. × H.	Net Each, Lots of		
		1	2-24	25-34
RC-11100	5 × 10 × 3¼	$27.50	$22.95	$20.65
RC-11101	12 × 10 × 8	50.50	50.50	45.45

VALU/LINE CABINETS

Classic styling together with innovative engineering result in a ruggedly built enclosure. Top, bottom, sides and back are all removable. Completely assembled unit includes two detachable rack mounting brackets and black rubber feet; adhesive paper covering on panels provides an excellent surface for indicating position when drilling or punching, ⅞" dia. knockout in rear. **Material:** Sides and front panel, ⅛" aluminum; base and cover, 0.057" aluminum; outer brackets, #11 gauge steel; inner brackets, 0.090" aluminum; handles, aluminum extrusion. **Finish:** Sides, white textured (WH); rear and top, smooth white. Removable outer brackets for mounting in standard EIA 19" cabinet. Bails available as listed; slides also available.

Bud No.	Size, Inches D. × W. × H.	Handle Cutouts		Net Each, Lots of		
		No.	H., In.	1	2-9	10-14
HC-14100	13 × 12¾ × 3½	1	2¾	$104.55	$104.55	$94.10
HC-14101	13 × 17 × 3½	1	2¾	110.30	110.30	99.25
HC-14102	13 × 12¾ × 5¼	1	3½	113.50	113.50	102.15
HC-14103	13 × 17 × 5¼	1	3½	113.80	113.80	102.40
HC-14104	13 × 17 × 7	1	3½	119.40	119.40	107.45
HC-14105	13 × 17 × 8¾	2	3½	125.15	125.15	112.65
HC-14106	13 × 17 × 10½	2	3½	130.85	130.85	117.75
HC-14107	15 × 17 × 10½	2	3½	136.50	136.50	122.85
HC-14108	15 × 17 × 12¼	2	3½	142.05	142.05	127.85
HC-14109	15 × 17 × 14	3	3½	153.40	153.40	138.05

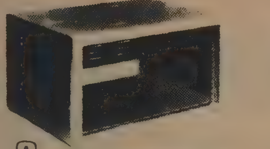
Bud No.	Description	Net Each, Lots of		
		1	2-9	10-14
BC-14210	Bail, 10" long	$8.20	$6.85	$6.15
BC-14215	Bail, 15" long	10.00	8.35	7.50

PORTACAB INSTRUMENT CABINETS

Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard porduction models. Made entirely of aluminum Flexible recessed handle. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed ½". Welded back has opening. Has four detachable rubber feet. Luster gray (LG) finish only.

Bud No.	Size, Inches W. × D. × H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of		
				1-24	25-49	50-74
WA1540	6⅛ × 8 × 8	2	AC-402	$30.80	$27.70	$24.65
WA1541	8⅛ × 12 × 9	3½	AC-407	42.35	38.10	33.90
WA1542	10⅛ × 8 × 8	3¾	AC-406	36.00	32.40	28.80
WA1543	11⅛ × 18 × 11	5½	AC-416	55.70	50.15	44.55
WA1544	14⅛ × 18 × 12	8	AC-420	66.20	59.60	52.95

BUD Metal Cabinets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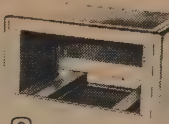
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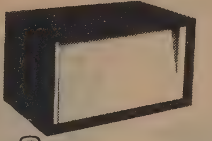
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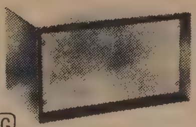
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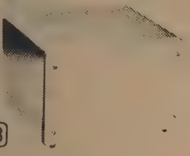
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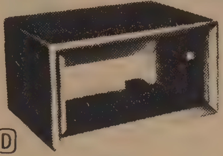
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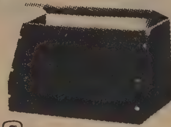
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H

STYLIST SERIES CABINET (FIG. A)

Highly modern cabinet designed to give you the style and construction advantages. Square-corner design, aluminum extrusion framing of front panel lends a contemporary dimension to the appearance of your product. Full width flanges along top and bottom of cabinet and strength. No tilt, no sway when cabinet is loaded. Load bearing capacity is 500 lbs. Constructed of 16 gauge cold rolled steel. Structure is self-supporting, no internal framework. Has 16 gauge steel louvered rear panel, 1¾" high opening for cable accessories. Front and rear openings accept either 19" panels or Stylist Series doors. Self-adhesive rubber feet furnished. Specify suffix for color: **RB,** royal blue; **GT,** gray textured. Example: S-1640**RB. Size:** $20^{13}/_{16}$" w. × 15¼" d., overall.

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of	
	Overall Height	Panel Space		1-9	10-14
S-1640	$8^{13}/_{16}$	7	26¾	$119.50	$107.55
S-1641	$10^{9}/_{16}$	8¾	29	125.15	112.65
S-1642	$12^{5}/_{16}$	10½	31	131.85	118.65
S-1643	$14^{1}/_{16}$	12¼	33	137.35	123.60
S-1644	$15^{13}/_{16}$	12	35¼	143.10	128.80
S-1645	$17^{9}/_{16}$	15¾	37¼	158.80	142.90

FRONT DOORS FOR STYLIST SERIES CABINETS

Overall width, 19". Specify color by suffix, **RB,** royal blue; **GT,** gray textured. Example: SD-540**RB**.

Bud No.	Height, In.	Wt., Lbs.	Fits Cabinet	Net Each, Lots of	
				1	2-9
SD-540	7	4¾	S-1640	$33.10	$27.65
SD-541	8¾	5½	S-1641	35.50	29.65
SD-542	10½	6¼	S-1642	37.20	31.05
SD-543	12¼	7	S-1643	38.10	31.80
SD-544	14	7¾	S-1644	40.70	34.00
SD-545	15¾	8½	S-1645	43.20	36.05

CONTOUR UTILITY CABINETS (FIG. B)

Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base. Body is royal blue textured **(RB)** or gray textured **(GT)** with white textured panels.

Bud No.	Overall Size, In. W. × D. × H.	Net Each, Lots of		
		1	2-49	50-99
CU-463	6¼ × 3¾ × 4¼	$18.10	$15.10	$13.60
CU-465	6¼ × 5¾ × 4¼	20.80	17.35	15.60
CU-585	8¼ × 5¾ × 5¼	26.70	22.30	20.05
CU-587	8¼ × 7¾ × 5¼	29.40	24.55	22.10
CU-7125	12¼ × 5¾ × 7¼	28.40	23.70*	21.35†
CU-7127	12¼ × 7¾ × 7¼	30.00	25.05*	22.55†

*Net Each, Lots of 2-24. †Net Each, Lots of 25-49.

PRESTIGE VERSA-CABINETS (FIG. C)

Balled corner, welded steel framework; sides top and bottom easily attached. Standard 19" panels used to enclose front or top. Has removable channels for shelf or chassis. Opening at back, 1¾" × $17^{15}/_{16}$". Cabinets may be attached side-to-side or stacked vertically. Perforated top panels and side handles available. Luster gray **(LG). Size:** $23^{3}/_{16}$" w. × 15¾" d., overall. Weight, 27 to 35 lbs.

Bud No.	Size, Inches			Net Each, Lots of		
	Overall Height	Panel				
		Space	Rear	1-14	15-24	25-34
PC-1700	8¾	5¼	3½	$133.95	$120.55	$107.15
PC-1701	10½	7	5¼	141.60	127.45	113.30
PC-1702	12¼	8¾	7	145.45	130.90	116.35
PC-1703	14	10½	8¾	149.80	134.80	119.85
PC-1704	15¾	12¼	10½	158.80	142.90	127.05
PC-1710	Perforated steel top plate, 12¼ × 19			15.30*	12.80†	11.50‡

*Lots of 1; †Lots of 2-14; ‡Lots of 15-24.

STANDARD PRESTIGE CABINETS (FIG. D)

Has two supporting rails, laterally movable to fit any chassis width, and shielded handle slots. Finger holes in cover for easy lifting. Of 16 gauge steel. Takes 19" panels. With embossed feet. **Size:** 21⅝" w. × 14¾" d. overall. Luster gray finish. **(LG).**

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of		
	Overall Height	Panel Space		1-14	15-24	25-34
C-1440	$9^{9}/_{16}$	7	25	$130.60	$117.55	$104.50
C-1441	$11^{5}/_{16}$	8¾	26	137.50	123.75	110.00
C-1442	$13^{1}/_{16}$	10½	28½	143.45	129.10	114.75
C-1550*	$9^{9}/_{16}$	7	23½	128.25	115.45	102.60
C-1551*	$11^{5}/_{16}$	8¾	25	133.60	120.25	106.90
C-1552*	$13^{1}/_{16}$	10½	27½	141.10	127.00	112.90

*With perforated cover; others solid.

FUTURA CABINETS (FIG. E)

Handsome housing of 20 and 18 gauge steel. Four rubber feet. Numbers MD-1960 thru MD-1962 have vertical front panel; all others (Fig. E) have inclined front panel rising 2" vertically, then inclining 15°. Specify color by suffix: **RB,** royal blue textured body with white textured panels. **(WH).**

Bud No.	Overall Size, In. W. × H. × D.	Net Each, Lots of		
		1-24	25-34	35-49
MD-1960	13 × 8 × 7	$30.30	$27.25	$24.25
MD-1961	14 × 9 × 8	35.90	32.30	28.70
MD-1962	16 × 9 × 8	36.50	32.85	29.20
MD-1963	13 × 8 × 7	30.75	27.70	24.60
MD-1964	14 × 9 × 8	36.50	32.85	29.20
MD-1965	16 × 9 × 8	37.25	33.55	29.80

SLOPING PANEL CABINETS (FIG. F)

Hinged top for easy access; front panel also removable. Available in luster gray finish. **(LG)**

Bud No.	Size, Inches H. × W. × D.	Wt., Lbs.	Net Each, Lots of		
			1	2-24	25-49
C-1584	6½ × $7^{1}/_{16}$ × $7^{5}/_{16}$	2¾	$18.50	$15.45	$13.90
C-1587	8 × $8^{1}/_{16}$ × 8	4	21.80	18.20	16.40
C-1585	6½ × $9^{1}/_{16}$ × $7^{5}/_{16}$	2½	19.20	16.05	14.45
C-1588	8 × $10^{1}/_{16}$ × 8	4½	23.20	19.35	17.40
C-1586	6½ × $11^{1}/_{16}$ × $7^{5}/_{16}$	3¾	22.40	18.70	16.85
C-1894	8 × $14^{1}/_{16}$ × 8	6	21.95	21.95	19.75
C-1892	8 × $13^{1}/_{16}$ × 8½	5½	26.45	26.45	23.80
C-1896	9 × $18^{1}/_{16}$ × $8^{3}/_{16}$	9¾	33.55	33.55	30.20
C-1893	10 × $18^{1}/_{16}$ × 10½	12½	34.30	34.30	30.85

SHADOW CABINETS (FIG. G)

Front panel recessed 1". Front edge of body is beveled. Body of 18 gauge and panels of 16 gauge steel. Four rubber feet. Available in luster gray finish only **(LG).**

Bud No.	Overall Size, In. W. × H. × D.	Uses Bud Chassis		Net Each, Lots of		
		AC-	AC-	1	2-24	25-49
SB-2140	14¼ × 8 × 10	424	1419	$38.75	$38.75	$34.90
SB-2141	13¼ × 7½ × 9	407	408	34.75	34.75	31.30
SB-2142	17 × 9½ × 11	411	1415	46.75	46.75	42.10
SB-2143	15½ × 6 × 9	409	408	34.25	34.25	30.85

"TILT-A-VIEW" CABINETS (FIG. H)

Designed to present variable viewing angles. Two-piece, 18-ga. steel. Fast, easy access to interior. Two 2" high legs, detachable for changed viewing angle, have rubber feet. Can be mounted on desk, cabinet or wall. Hooded top. No screws in panels. **Finish:** Gray textured cover **(GT)** with white textured body. **(WH).**

Bud No.	Size, Inches W. × D. × H.	Net Each, Lots of		
		1	2-24	25-49
TV-2155	15 × 10 × 4½	$29.15	$29.15	$26.25
TV-2156	16 × 12 × 6½	35.55	35.55	32.00
TV-2157	17 × 14 × 8½	44.50	44.50	40.05

BUD Cabinets

A

B

C

Panel not included

D

STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Back opening 3½″ h. provides for cables or rear controls; louvered sides provide ample ventilation. **Size:** 8¼″ d. × 8″ h. overall. Luster gray finish only.

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of		
	Overall Width	Panel Space		1-24	25-49	50-99
CD-1480	10½	8 × 8	6¼	$26.80	$24.10	$21.45
CD-1481	12½	8 × 10	6¾	27.55	24.80	22.05
CD-1482	14½	8 × 12	7½	29.40	26.45	23.50
CD-1483	16½	8 × 14	7¾	31.00	27.90	24.80
CD-1484	18½	8 × 16	9¼	32.40	29.15	25.90
CD-1485*	20⅝	12 × 18	17½	61.35	55.20	49.10

*Depth is 12″.

METAL UTILITY CABINETS (FIG. B)

Highly useful housing for all types of electronic equipment. Both font and back panels are removable for easy accessibility.

STEEL CABINETS

Finishes: **"CU"** prefix—steel with luster gray **(LG)**. **"AU"** prefix—Aluminum alloy in natural or luster gray **(LG)**.

Bud No.	Size, Inches D. × W. × H.	Wt., Lbs.	Net Each, Lots of		
			1	2-49	50-99
CU-883	2 × 4 × 4	¾	$ 6.70	$ 5.60	$ 5.05
CU-728	3 × 5 × 4	1	7.70	6.45	5.80
CU-729	4 × 5 × 6	1¾	8.80	7.35	6.60
CU-1098	6 × 6 × 6	2¼	14.60	12.20	11.00
CU-1099	5 × 6 × 9	3	15.90	13.30	11.95
CU-879	7 × 8 × 10	3¼	22.00	18.35	16.50
CU-1124	6 × 7 × 12	5	19.70	16.45	14.80
CU-880	8 × 10 × 10	6¼	23.90	19.95	17.95
CU-881	8 × 11 × 12	8½	29.20	24.40	21.95
CU-882	7 × 9 × 15	8¼	30.00	25.50	22.55

NATURAL FINISH ALUMINUM CABINETS*

Bud No.	Size, Inches D. × W. × H.	Wt., Lbs.	Net Each, Lots of		
			1	2-49	50-99
AU-1083	2 × 4 × 4	¼	$ 6.30	$5.25	$4.75
AU-1028	3 × 5 × 4	½	6.50	5.45	4.90
AU-1029	4 × 5 × 6	¾	7.30	6.10	5.50
AU-1039	6 × 6 × 6	1	11.30	9.45	8.50
AU-1040	5 × 6 × 9	1½	12.50	10.45	9.40

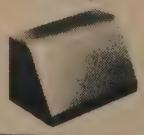
LUSTER GRAY ALUMINUM CABINETS*

AU-1083LG	2 × 4 × 4	¼	$ 7.70	$ 6.45	$ 5.80
AU-1028LG	3 × 5 × 4	½	8.30	6.95	6.25
AU-1029LG	4 × 5 × 6	¾	10.10	8.45	7.60
AU-1039LG	6 × 6 × 6	1	14.30	11.95	10.75
AU-1040LG	5 × 6 × 9	1½	17.30	14.45	13.00

*Aluminum alloy 5005 H-14.

UNIVERSAL SLOPING PANEL CABINETS

Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Luster gray finish (**LG**).



ALUMINUM MODELS

Aluminum alloy 5005 H-14.

Bud No.	Size, Inches W. × D. × H.	Wt., Lbs.	Net Each, Lots of		
			1	2-99	100-199
AC-1610	4 × 4 × 4$^{3}/_{16}$	⅜	$8.00	$6.70	$6.05
AC-1611	5 × 4 × 4$^{3}/_{16}$	½	8.30	6.95	6.25
AC-1612	6 × 4 × 4$^{3}/_{16}$	$^{9}/_{16}$	8.50	7.10	6.40
AC-1613	7 × 4 × 4$^{3}/_{16}$	⅝	9.40	7.85	7.05

DELUXE CABINET RACKS (FIG. C)

Heavy-gauge steel racks with recessed hinged door on top and black thermoplastic slide latch; rounded corners. The five large sizes have hinged rear doors; others, welded rear panels. Louvered sides. Embossed metal feet. Available in luster gray finish **(LG)**. **Size:** 14¾″ × 22″ w. Fits 19″ panels.

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of		
	Overall Height	Panel Space		1-9	10-14	15-19
CR-1726	8$^{13}/_{16}$	7	28	$ 80.10	$ 72.10	$ 64.10
CR-1741	10$^{9}/_{16}$	8¾	30	88.00	79.20	70.40
CR-1740	12$^{5}/_{16}$	10½	34	90.45	81.40	72.35
CR-1742	14$^{1}/_{16}$	12¼	37	97.20	87.50	77.75
CR-1739	15$^{13}/_{16}$	14	40	126.40	113.75	101.10
CR-1743*	19$^{5}/_{16}$	17½	47	129.25	116.35	103.40
CR-1727*	22$^{13}/_{16}$	21	51	138.70	124.85	110.95
CR-1744*	28$^{1}/_{16}$	26¼	58	142.80	128.50	114.25
CR-1728*	33$^{5}/_{16}$	31½	68	152.20	137.00	121.75
CR-1745*	36$^{13}/_{16}$	35	78	159.50	143.55	127.60

*These sizes have both top and rear doors.

HEAVY DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2½″ × 17⅞″ opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. **Size:** 17⅛″ d. × 22″ w. Luster gray finish **(LG)**.

Bud No.	Size, Inches		Wt., Lbs.	Net Each, Lots of		
	Overall Height	Panel Space		1-9	10-14	15-19
CR-1736	24½	19¼	47	$125.25	$112.75	$100.20
CR-1737	31½	26¼	56	134.45	121.00	107.55
CR-1738	40¼	35	67	165.35	148.80	132.30

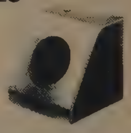
PRESTIGE SLOPING PANEL CABINETS (FIG. D)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19″ panels. Shielded lifting handles. Rear opening 2½″ × 18″ for controls, etc.; panel recess 1¼″; bottom panel 3½″ high. **Size:** 22″ w. × 9¼″ top depth. Luster gray finish **(LG)**. Weight, 25, 27 and 30 lbs.

Bud No.	Size, In. H. × D.	Slope H., In.	Net Each, Lots of		
			1-14	15-24	25-34
C-1555	11⅞ × 14⅜	7	$104.20	$ 93.80	$83.35
C-1556	13¼ × 15⅛	8¾	110.95	99.85	88.75
C-1557	14¾ × 16⅛	10½	118.90	107.00	95.10

UNIVERSAL METER CASES

Center hole punched for 2″ meters, plus easily removed knock-out ring to provide fit for 3″ meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two ⅜″ knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Luster gray finish only **(LG)**.
Size: 4$^{5}/_{16}$″ h. × 4″ w. × 4$^{1}/_{16}$″ d.



Bud No.	Construction	Wt., Lbs.	Net Each, Lots of		
			1	2-49	50-99
CM-1935	Steel	¾	$8.50	$7.10	$6.40
CMA-1936	Aluminum	¼	9.10	7.60	6.85

WIDE UNIVERSAL METER CASE

Same as above, except extra wide to permit installation of small components along with a meter or accommodate a 4″ meter. Made of 5005 H-14 aluminum.
Size: 4$^{5}/_{16}$″ h. × 6″ w. × 4$^{1}/_{16}$″ d.

Bud No.	Construction	Wt., Lbs.	Net Each, Lots of		
			1	2-49	50-99
CMA-1930	Aluminum	½	$12.30	$10.25	$9.25

MINIBOXES,

Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. **Either snap-lock or screw type.** The flange type construction assures adequate shielding. Made from heavy .040 ga. aluminum. Available in natural aluminum finish and light gray finish.

GRAY ENAMEL MINIBOXES

Bud No.	Size, Inches L. × H. × W.	Wt., Lbs.	Net Each, Lots of 1	2-99	100-199
CU-2100B	2¾ × 2⅛ × 1⅝	¼	$ 2.80	$ 2.35	$ 2.10
CU-2101B	3¼ × 2⅛ × 1⅝	¼	2.90	2.40	2.15
CU-2102B	4 × 2⅛ × 1⅝	¼	3.10	2.60	2.35
CU-2103B	4 × 2¼ × 2¼	¼	3.20	2.65	2.40
CU-2104B	5 × 2¼ × 2¼	¼	3.70	3.10	2.80
CU-2105B	5 × 4 × 3	½	4.60	3.85	3.45
CU-2106B	5¼ × 3 × 2⅛	¼	4.50	3.15	2.85
CU-2107B	6 × 5 × 4	¾	6.40	5.35	4.80
CU-2108B*	7 × 5 × 3	¾	5.90	4.95	4.45
CU-2109B*	8 × 6 × 3½	1	12.40	10.35	9.30
CU-2110B*	10 × 6 × 3½	1¼	13.20	11.00	9.90
CU-2111B*	12 × 7 × 4	1¾	17.40	14.55	13.10
CU-2112B*	17 × 5 × 4	2¼	18.40	15.35	13.80
CU-2113B*	10 × 2 × 1⅝	½	6.10	5.10	4.60
CU-2114B*	12 × 2½ × 2¼	¾	9.00	7.50	6.75
CU-2115B*	4 × 2 × 2¾	¼	4.40	3.65	3.30
CU-2116B	4¼ × 2¼ × 1½	¼	3.60	3.00	2.70
CU-2117B	3¼ × 2⅛ × 1⅛	¼	3.00	2.50	2.25

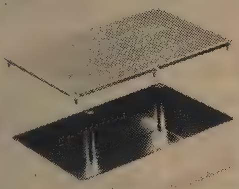
*.050" aluminum.

NATURAL FINISH MINIBOXES

Bud No.	Size, Inches L. × H. × W.	Wt., Lbs.	Net Each, Lots of 1	2-99	100-199
CU-3000A	2¾ × 2⅛ × 1⅝	¼	$ 2.00	$ 1.65	$ 1.50
CU-3001A	3¼ × 2⅛ × 1⅝	¼	2.60	1.75	4.45
CU-3002A	4 × 2⅛ × 1⅝	¼	2.20	1.85	1.65
CU-3003A	4 × 2¼ × 2¼	¼	2.60	2.15	1.95
CU-3004A	5 × 2¼ × 2¼	¼	3.00	2.50	2.25
CU-3005A	5 × 4 × 3	½	4.00	3.35	3.00
CU-3006A	5¼ × 3 × 2⅛	¼	3.30	2.75	2.50
CU-3007A	6 × 5 × 4	¾	5.90	4.95	4.45
CU-3008A*	7 × 5 × 3	¾	5.30	4.45	4.00
CU-3009A*	8 × 6 × 3½	1	8.20	6.85	6.15
CU-3010A*	10 × 6 × 3½	1¼	10.40	8.70	7.85
CU-3011A*	12 × 7 × 4	1¾	13.20	11.00	9.90
CU-3012A*	17 × 5 × 4	2¼	13.90	11.60	10.45
CU-3013A*	10 × 2 × 1⅝	½	4.80	4.00	3.60
CU-3014A*	12 × 2½ × 2¼	¾	6.50	5.45	4.90
CU-3015A	4 × 2 × 2¾	¼	3.20	2.65	2.40
CU-3016A	4¼ × 2¼ × 1½	¼	3.20	2.65	2.40
CU-3017A	3¼ × 2⅛ × 1⅛	¼	2.50	2.10	1.90

*.050" aluminum.

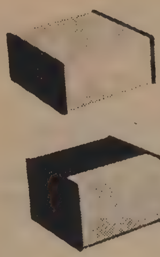
DIECAST BOXES



The low cost, cast aluminum enclosure for almost anything. Close fitting, flanged lids fasten to bosses in the body by means of screws. This, plus the thickness of the aluminum alloy (LM-380), offers excellent screening properties. Boxes are light weight and easily machined. Cover and body of CU-247 and CU-347 are fastened together with 6 screws; the others use 4 screws. Hardware is furnished. Height given includes cover.

Bud No.	Size, Inches W. × D. × H.	Net Each, Lots of 1	2-99	100-199
CU-123	1½ × 3⅝ × 1 7/32	$ 4.20	$ 3.50	$3.15
CU-124	2⅜ × 4⅜ × 1 7/32	4.80	4.00	3.60
CU-234	3 11/16 × 4 11/16 × 2 7/32	7.90	6.60	5.95
CU-247	4 45/64 × 7 25/64 × 2 7/32	12.70	10.60	9.55
CU-347	4 45/64 × 7 25/64 × 3 7/32	13.20	11.00	9.90

CONTEMPO ENCLOSURES



Clean contemporary design—versatile, highly functional, .062" aluminum top and body. Molded .160" cycolac plastic end panels. Twenty-two sizes with either wood grain and eggshell or black pebble and smooth gray finish. Top slides into grooves in end panels and is secured with two screws. The letter **B** in the Bud Model No. designates black end panels with gray body; the letter **W** designates wood grain finish on end panels and body with eggshell body, front and rear panels.

Bud No.	Inside Dimen., Inches* H.	× W.	× D.	Net Each, Lots of 1	2-49	50-99
JB-1650	2⅛	3⅝	5⅝	$14.80	$12.35	$11.10
JB-1651	2⅛	4 15/16	5⅝	15.60	13.05	12.75
JB-1652	2⅛	5 15/16	5⅝	16.40	13.70	12.35
JB-1653	2⅛	6 15/16	5⅝	17.60	14.70	13.25
JB-1654	2⅛	8	5⅝	19.80	16.55	14.90
JB-1655	2⅛	10⅛	5⅝	25.10	20.95	18.85
JW-3200	2⅛	3⅞	5⅝	15.00	12.55	11.30
JW-3201	2⅛	4 15/16	5⅝	15.80	13.20	11.90
JW-3202	2⅛	5 15/16	5⅝	16.70	13.95	12.55
JW-3203	2⅛	6 15/16	5⅝	18.90	15.80	14.20
JW-3204	2⅛	8	5⅝	18.90	17.80	16.00
JW-3205	2⅛	10⅛	5⅝	27.50	22.95	20.65

*Add 5/16" to H., ¼" to W. and 5/16" to D. to obtain outside dimensions.

Bud No.	Inside Dimen., Inches* H.	× W.	× D.	Net Each, Lots of 1	2-49	50-99
LB-1660	2 15/16	3⅞	6¾	$15.80	$13.20	$11.90
LB-1661	2 15/16	4 15/16	6¾	16.40	13.70	12.35
LB-1662	2 15/16	5 15/16	6¾	18.20	15.10	13.60
LB-1663	2 15/16	6 15/16	6¾	21.10	17.60	15.85
LB-1664	2 15/16	8	6¾	23.50	19.60	17.65
LB-1665	2 15/16	10⅛	6¾	29.40	24.55	22.10
LW-3210	2 15/16	3⅞	6¾	15.80	13.20	11.90
LW-3211	2 15/16	4 15/16	6¾	17.50	14.60	13.15
LW-3212	2 15/16	5 15/16	6¾	20.10	16.80	15.10
LW-3213	2 15/16	6 15/16	6¾	22.70	18.95	17.05
LW-3214	2 15/16	8	6¾	25.90	21.65	19.50
LW-3215	2 15/16	10⅛	6¾	31.00	25.90	23.30

*Add ¼" to H., ¼" to W. and ¼" to D. to obtain outside dimensions.

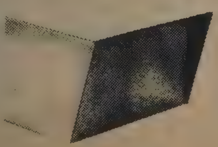
Bud No.	Inside Dimen., Inches* H.	× W.	× D.	Net Each, Lots of 1	2-49	50-99
MB-1670	4 3/16	4 15/16	6 5/16	$16.70	$13.95	$12.55
MB-1671	4 3/16	5 15/16	6 5/16	18.00	15.05	13.55
MB-1672	4 3/16	6 15/16	6 5/16	20.75	17.35	15.60
MB-1673	4 3/16	8	6 5/16	23.50	19.60	17.65
MB-1674	4 3/16	10⅛	6 5/16	29.60	24.70	22.25
MB-1675	4 3/16	12⅛	6 5/16	36.60	30.55	27.50
MW-3220	4 3/16	4 15/16	6 5/16	17.40	14.55	13.10
MW-3221	4 3/16	5 15/16	6 5/16	19.90	16.60	14.95
MW-3222	4 3/16	6 15/16	6 5/16	22.70	18.95	17.05
MW-3223	4 3/16	8	6 5/16	25.80	21.55	19.40
MW-3224	4 3/16	10⅛	6 5/16	31.00	25.90	23.30
MW-3225	4 3/16	12⅛	6 5/16	34.00	30.80	27.70

*Add ¼" to H., ¼" to W. and ¼" to D. to obtain outside dimensions.

Bud No.	Inside Dimen., Inches* H.	× W.	× D.	Net Each, Lots of 1	2-24	25-34
DB-1680	4 3/16	8	10 9/32	$38.30	$32.00	$28.80
DB-1681	4 3/16	10	10 9/32	40.80	34.05	30.65
DB-1682	4 3/16	12	10 9/32	41.50	37.30	33.55
DB-1683	4 3/16	14	10 9/32	42.00	40.35	36.30
DW-3230	4 3/16	8	10 9/32	35.65	35.65	32.10
DW-3231	4 3/16	10	10 9/32	39.00	39.00	35.10
DW-3232	4 3/16	12	10 9/32	43.15	43.15	38.85
DW-3233	4 3/16	14	10 9/32	49.85	49.85	44.85

*Add ¼" to H., 11/32" to W. and 7/32" to D. to obtain outside dimensions.

COWL-TYPE MINIBOXES

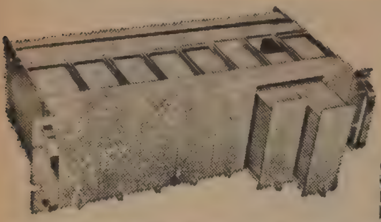


The cowl-type Minibox has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Consturcted of .040" aluminum and available in natural or luster gray finish (LG).

Bud No.	Overall Size, In. H. × W. × D.	Net Each, Lots of 1	2-99	100-199
SC-2130*	6 × 10 × 7	$25.80	$21.55	$19.40
SC-2131*	7 × 12 × 8	28.30	23.65	21.30
SC-2132*	3 × 8 × 5	14.80	12.35	11.10
SC-2133*	5 × 5 × 5	15.20	12.70	11.45
SC-3030†	6 × 10 × 7	17.50	14.60	13.15
SC-3031†	7 × 12 × 8	18.80	15.70	14.15
SC-3032†	3 × 8 × 5	9.90	8.25	7.45
SC-3033†	5 × 5 × 5	10.50	8.75	7.90

*Painted luster gray. †Natural aluminum finish.

Vector Cases and Cages



CMA3A20 Cage with added HA12 Handles, Filler Panels and Modules

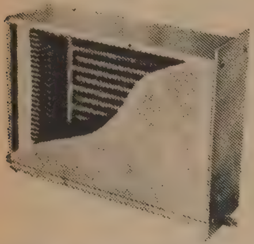
The Vector Pak system is a coordinated packaging system which provides modular cases and cages for nearly all Vector Plugbords and many industry-standard plug-in boards. Adjustable rear struts mount almost any PC connector without hole drilling or special brackets. Other sizes and cage parts are available separately—write for catalog.

Vector No. CMA3A20 Cage—5¼″ h. x 8.9″ deep fits 19″ racks. Holds eight 2″ wide x 6½″ long x 4.6″ high modules (Vector No. EFP204A66). Net Each........................... **$71.32**

Vector No. CMA4A20 Cage—5¼″ h. x 12″ deep fits 19″ racks. Holds eight 2″ wide x 9.6″ long x 4.6″ high modules (Vector No. EFP204A97). Net Each........................... **$73.24**

Vector No. CMA3A16 Cage—Same as No. CMA3A20, except holds ten 1.6″ wide x 6.6″ long x 4.6″ high modules (Vector No. EFP164A66). Net Each........................... **$78.27**

EFP MODULES



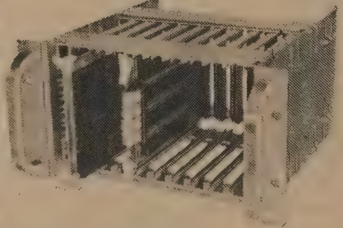
All-aluminum modules have anodized finish and have 5¼″ high front panels with thumb screw, solid rear panels for connector mounting or circuit board slotting, rear sliding side covers, and inner multiple-grooved top and bottom rails to hold 1⁄16″ thick circuit boards without special bracketing.

Vector No. EFP164A66 Case—Has 6 circuit board grooves spaced 0.150″ apart on top and bottom rails, holds circuit boards 4.5″ wide x 6.5″ maximum length inside. Net Each........ **$11.82**

Vector No. EFP204A66 Case—Same as No. EFP164A66, except has 9 circuit board grooves. Net Each............... **$12.15**

Vector No. EFP204A97 Case—Same as No. EFP164A66, except holds circuit boards 4.5″ wide x 9.6″ maximum length inside. Net Each.................................. **$13.94**

SNAP-IN CARD GUIDES/CAGES

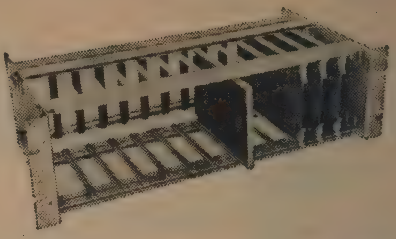


Vector "S" Series cages utilize molded snap-in nylon card guides and are available in 5¼″ high models. Besides guides, cages include 2 aluminum walls with adjustment slots for different card widths and connector lengths, heavy extruded cross members with card guide mounting holes on 0.25″ centers, connector mounting struts with mounting hardware and attaching slotted mounting brackets, permitting forward/backward connector positioning. Kits assemble quickly with provided hardware. Snap-in molded gray nylon card guides are .375″ wide and have .072″ wide by .100″ deep card slots and ferry boat tapered ramps at each end. Guides may also be mounted in sheet metal plates .050″ to .125″ thick for creating non-rack mounted card carriers. **Card Width Range:** 3″ min. to 4½″ max. **Card Length:** 6½″. **Spacing:** Any multiple of 0.25″.

Vector No.	Guides Furnished for No. of Positions	Dimensions		Net Each
		Width	Depth	
CCK-13S	21	19″	9″	$46.48
CCK-135AS	10	10¼″	9″	40.81

SNAP-IN CARD GUIDES FOR .156″ HOLES

Vector No.	Overall Length	Mounting Hole Pitch Distance	Net Each
BR20-19S	8.42″	7.5″	$0.39
BR20-17S	6.92″	6″	.39
BR20-6S	5.42″	4.5″	.36
BR20-13S	3.17″	2.25″	.32



CCK13

VECTOR-PAK CARD CAGES

19″ rack mounting cages are supplied completely assembled, ready for connectors. Models listed accommodate 1⁄16″ thick cards 4.5″ maximum to 3″ minimum width x 6.5″ long except CCK14 holds cards 9.6″ long. Heavy extruded aluminum cross members (T-Struts) provide strength and easy, infinitely variable connector spacing. 21 pairs of 4-40 connector mounting nuts are furnished installed.

Vector No. CCK3 Card Cage—Has 108 grooves 0.075″ wide for 1⁄16″ circuit cards in extruded aluminum plates mounted top and bottom. Vertically and horizontally adjustable rear cross members have 21 pairs of 4-40 nuts in captive grooves for easy connector mounting. Net Each.............................. **$54.35**

Vector No. CCK13 Card Cage—19″ wide x 5¼″ high x 8.9″ deep. Has 21 pairs of riveted anodized aluminum card guides. Net Each.............................. **$56.68**

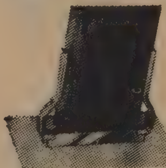
Vector No. CCK13P Card Cage—Same as No. CCK13, except with riveted ABS plastic guides. Net Each................ **$56.68**

Vector No. CCK14P Card Cage—19″ wide x 5¼″ high x 12 deep. Has 21 pairs of riveted card ABS plastic card guides on 0.75″ centers. Net Each.............................. **$65.33**

CAGE KIT

Vector No. CA52HP89 Cage Kit—All-aluminum 19″ rack mounting unit is 5¼″ x 8.9″ deep and has 6 bracket-mounted cross members, slotted side walls, and all assembly hardware. Use for maximum flexibility in card or module cage design. Net Each.. **$43.31**

BR27 SERIES RECEPTACLE MTD. CARD GUIDES



Provides support for receptacle supported circuit boards. For plugbords with centered contacts except BR27-2 for .050″ offset contact plugbords. With mounting hardware.

Vector No.	Use With Receptacle	Net/ Pair	Vector No.	Use With Receptacle	Net/ Pair
BR27D	R644, -1	$1.79	BR27-3	R630	$3.20
BR27-1	R636	2.93	BR27-4	R644-2	2.91
BR27-2	R644, -1	1.98			

MULTI-MOD CASES

Sleek and sturdy aluminum cases have .075″ wide slots on .150″ centers across case width for screw-free mounting of circuit cards or shielding panels. Easily removable fourth side permits side cover to slide off for quick access. Clear anodized; colors available.

Vector No.	Size, Inches			For Circuit Card Size, In.	Net Each
	Width	Length	Height		
W16-31-31B	1.6	3.10	3.10	2.98 x 2.98	$ 6.65
W20-28-46B	2.0	2.85	4.61	2.73 x 4.50	6.47
W20-66-46B*	2.0	6.61	4.61	4.50 x 6.50	8.09
W30-66-46B*	3.0	6.61	4.61	4.50 x 6.50	9.85
W30-86-46B*	3.0	8.61	4.61	4.50 x 8.50	10.98
W45-66-46B*	4.5	6.61	4.61	4.50 x 6.50	12.86
W45-86-46B*	4.5	8.61	4.61	4.50 x 8.50	14.51
W45-10-66B*	4.5	10.00	4.61	4.50 x 9.88	19.81

*Eight rubber bump feet are supplied with these cases.

alpha Mil-Spec and UL Hook-Up Wire

SPECIFICATION MIL-W-16878D HOOK-UP WIRE

TYPE B UNCOVERED PLASTIC

Single conductor stranded tinned copper. .010″ polyvinylchloride insulation. Rated 600 volts. Temp., −55° C to +105° C.

Alpha No.	MIL-W Type	Conductor		Nom. O.D.	Colors‡	Net per Spool	
		Size	Strand			1000′	100′
1850	B-32	32	7/40	.028″	1-19	$38.76	$ 6.66
1851	B-30	30	7/38	.032″	1-19	31.81	5.48
1852	B-28	28	7/36	.034″	1-19	28.06	5.21
1853	B-26	26	7/34	.038″	1-19	31.66	5.37
1854	B-24	24	7/32	.043″	1-19	28.50	5.31
1854/19	B-24	24	19/36	.043″	1-19	35.65	6.86
1855	B-22	22	7/30	.050″	1-19	31.03	6.15
1855/19	B-22	22	19/34	.050″	1-19	43.98	8.48
1856	B-20	20	7/28	.058″	1-19	38.55	7.32
1856/19	B-20	20	19/32	.058″	1-19	43.83	7.43
1857	B-18	18	7/26	.068″	1-19	47.67	7.61
1857/19	B-18	18	19/30	.068″	1-19	59.19	9.65
1858/19	B-16	16	19/29	.077″	1-19	65.02	9.94
1859/19	B-14	14	19/27	.091″	1-19	92.58	22.35

TYPE B NYLON JACKET

Same as above, but clear nylon jacket overall; 115° C.

1863	B-26	26	7/34	.044″	1-19	$ 42.15	$ 7.46
1864	B-24	24	7/32	.049″	1-19	40.39	7.06
1864/19	B-24	24	19/36	.049″	1-19	48.19	7.90
1865	B-22	22	7/30	.056″	1-19	45.58	7.74
1865/19	B-22	22	19/34	.056″	1-19	55.08	8.90
1866	B-20	20	7/28	.064″	1-19	51.37	8.10
1866/19	B-20	20	19/32	.064″	1-19	59.52	9.46
1867	B-18	18	7/26	.074″	1-19	63.85	10.26
1867/19	B-18	18	19/30	.074″	1-19	75.88	11.79
1868/19	B-16	16	19/29	.085″	1-19	80.64	10.72
1869/19	B-14	14	19/27	.099″	1-19	118.47	18.67

TYPE C UNCOVERED PLASTIC

Single conductor stranded tinned copper; .016″ polyvinylchloride insulation. Rated 1000 volts. Temp., −55° C to +105° C.

Alpha No.	MIL-W Type	Conductor		Nom. O.D.	Colors‡	Net per Spool	
		Size	Strand			1000′	100′
1830	C-24	24	7/32	.058″	1-19	$ 44.20	$ 9.10
1831	C-22	22	7/30	.064″	1-19	49.69	10.01
1832	C-20	20	7/28	.072″	1-19	60.73	11.54
1833	C-18	18	7/26	.082″	1-19	87.90	15.32
1834	C-16	16	19/29	.091″	1, 11-19	116.35	20.24
1835	C-14	14	19/27	.015″	1, 11-19	179.43	30.07
1836	C-12	12	19/25	.124″	1, 11-19	281.80	44.35

TYPE D UNCOVERED PLASTIC

Same as Type D except without nylon jacket; 105° C max.

Alpha No.	MIL-W Type	Conductor		Nom. O.D.	Colors*	Net per Spool	
		Size	Strand			1000′	100′
1870	D-24	24	7/32	.082″	1-3	$ 27.33	$ 5.53
1871	D-22	22	7/30	.088″	1-3	65.26	12.21
1872	D-20	20	7/28	.096″	1-3	79.02	14.49
1873	D-18	18	7/26	.106″	1-3	97.75	16.16
1874	D-16	16	19/29	.115″	1-3	144.79	22.70
1875	D-14	14	19/27	.129″	1-3	191.73	28.25
1876	D-12	12	19/25	.158″	1-3	297.72	43.04
1877	D-10	10	37/26	.185″	1	449.62	60.73
1878	D-8	8	133/29	.247″	1	874.69	100.00
1879	D-6	6	133/27	.290″	1	1263.06	152.73

TYPE E TEFLON® STRANDED-CONDUCTOR WIRE

Stranded or solid, silver plated copper conductor; extruded TFE Teflon insulation, Rated 600V. Temp. −65° C to +200° C.

Alpha No.	MIL-W Type	Conductor		Nom. O.D.	Colors‡	Spool of 100′▲
		Size	Strand			
5851	E-30	30	7/38	.028″	1-19	$ 17.82
5852	E-28	28	7/36	.031″	1-19	17.75
5853	E-26	26	7/34	.035″	1-19	18.71
5854	E-24	24	19/36	.040″	1-19	28.92
5854/7	E-24	24	7/32	.039″	1-19	21.89
5855	E-22	22	19/34	.046″	1-19	32.98
5855/7	E-22	22	7/30	.045″	1-19	26.17
5856	E-20	20	19/32	.054″	1-19	41.20
5856/7	E-20	20	7/28	.053″	1-19	34.87
5857	E-18	18	19/30	.064″	1-19	54.76
5858	E-16	16	19/29	.073″	1-19	67.21
5859§	E-14	14	19/27	.094″	1-6, 11-19	93.26
5859/12§	E-12	12	19/25	.113″	1, 11-19	102.16
5859/10§	E-10	10	37/26	.134″	1, 11-19	152.95

TYPE EE TEFLON® WIRE

Same as Type E, but .014″ thick extruded TFE Teflon insulation. Rated 1000 volts. Temperature, −65° C to +200° C.

Alpha No.	MIL-W Type	Conductor		Nom. O.D.	Colors‡	Spool of 100′▲
		Size	Strand			
2874	EE-24	24	19/36	.055″	1-19	$ 42.99
2875	EE-22	22	19/34	.062″	1-19	50.09
2876	EE-20	20	19/32	.070″	1-19	64.70
2877	EE-18	18	19/30	.080″	1-19	75.24
2878	EE-16	16	19/29	.089″	1, 11-19	100.00
2879§	EE-14	14	19/27	.106″	1, 11-19	113.83
2879/12§	EE-12	12	19/25	.124″	1, 11-19	168.15
2879/10§	EE-10	10	37/26	.145″	1, 11-19	202.23
2879/8#	EE-8	8	133/29	.210″	1	572.88

§Insul., .017″ thick. #Insul., .020″ thick. ▲Spool of 1000′ also avail.; prices on request.

SPECIFICATION MIL-W-76B PLASTIC HOOK-UP WIRE

TYPE MW (MEDIUM WALL) PLASTIC

Single conductor stranded or solid tinned copper, polyvinylchloride insulation .016″ th. Rated 1000 volts. Temp., −40° C to +80° C.

STRANDED

Alpha No.	Type MW-C	Conductor		Nom. O.D.	Colors‡	Net per Spool	
		Size	Strand			1000′	100′
1550	24(7)U	24	7/32	.059″	1-27	$ 28.60	$ 5.24
1551	22(7)U	22	7/30	.064″	1-27	32.44	5.68
1553	20(10)U	20	10/30	.073″	1-27	38.10	6.84
1555	18(16)U	18	16/30	.084″	1-27	48.70	7.86
1557	16(26)U	16	26/30	.095″	1-19	72.06	11.41
1559	14(41)U	14	41/30	.110″	1-19	109.15	15.67
1560	12(65)U	12	65/30	.125″	1-19	162.03	24.41

SOLID

Alpha No.	Type MW-C	Conductor		Nom. O.D.	Colors‡	Net per Spool	
		Size	Strand			1000′	100′
1561/24	24(1)U	24	1	.055″	1-19	$22.65	$4.99
1561	22(1)U	22	1	.060″	1-19	25.24	4.84
1563	20(1)U	20	1	.066″	1-19	31.65	5.75
1565	18(1)U	18	1	.074″	1-19	44.80	7.66

UL HOOK-UP WIRE

The special, custom or prototype, UL Listed wire you need—in ready to use form—from one foot to production requirements, produced and delivered to you fast. Stranded tinned copper, color coded polyvinylchloride insulation. Resistant to acids, alkalis, oil, flame, moisture and fungus.

300 VOLTS, 80° C, UL STYLE 1007

Temperature rating, −10° C to +80° C. Voltage rating, 300 volts. Nom. wall thickness, .016″. CSA Style TR-64, 1/64″ nom. wall thickness.

Alpha No.	Conductor		Nom. O.D.	Colors*	Net per Spool	
	Size	Strand			1000′	100′
3050	24	7/32	.057″	1-19	$27.04	$ 5.21
3051	22	7/30	.065″	1-19	32.10	5.90
3053	20	10/30	.071″	1-19	38.76	7.12
3055	18	16/30	.080″	1-19	42.96	7.44
3057	16	26/30	.095″	1-19	64.75	10.39

600 VOLTS, 105° C, UL STYLE 1015

Temperature rating, −10° C to +105° C. Voltage rating, 600 volts. Nom. wall thickness, .016″. CSA Style TEW-105, 1/32″ nom. wall thickness.

3071	22	7/30	.095″	1-10	$ 34.60	$ 5.62
3073	20	10/30	.102″	1-10	44.98	7.35
3075	18	16/30	.112″	1-10	52.12	8.83
3077	16	26/30	.125″	1-10	78.33	11.23
3079	14	41/30	.142″	1-10	104.71	15.58

SEMI-RIGID PVC, 300 VOLTS, 80° C, UL STYLE 1061

Stranded tinned copper, color coded semi-rigid polyvinylchloride insulation. Temperature rating, −10° C to +80° C. Voltage rating, 300 volts in business machine or electronic computers only. Nom. wall thickness, .009″. Applications include internal wiring of computers, electric bookkeeping, accounting machines, and other office and control equipment.

3250	24	7/32	.042″	1-10	$25.30	$3.88
3251	22	7/30	.048″	1-10	31.87	4.91
3252	20	7/28	.056″	1-10	46.36	6.93

KYNAR® WIRE, 125° C, 300 VOLTS FOR WIRE WRAP CONNECTIONS

Solid, silver-plated, oxygen-free high conductivity (OFHC) copper conductor, extruded Kynar (Polyvinylidene fluoride) insulation. Extremely tough, high cut-through resistance. Self-extinguishing, will not support combustion. Excellent ultra-violet and weathering resistance. Used in automatic wire wrapping equipment in computer and related industries. Temp. rating, through 125° C continuous (UL rated at 105° C). Nominal wall thickness, .005″. Cut lengths available, write or phone for information.

Alpha No.	Conductor Size	Nom. O.D.	Colors*	Net per Spool	
				1000′	100′
5951	30	.020″	1-10	$ 92.77	....
5952	28	.023″	1-10	107.37	....
5953	26	.026″	1, 3-6, 9	109.81	....
5954	24	.030″	1, 3-6	135.76	....

*‡STOCK COLORS

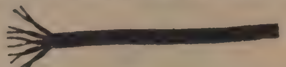
*Specify color. ‡Prices shown are for solid colors only. Following striping charges apply for either one, two or three spiral tracers per item in any standard put-up. Plastic and nylon jacketed wire, **$1.50** per 1000′; Teflon® wire, **$11.25** per 1000′. Other tracer colors available at extra cost. Write for information.

No.	Color	No.	Color	No.	Color
1	White	10	Violet	19	White/Violet
2	Black	11	White/Black	20	White/Black/Red
3	Red	12	White/Red	21	White/Black/Green
4	Green	13	White/Green	22	White/Black/Yellow
5	Yellow	14	White/Yellow	23	White/Black/Blue
6	Lt. Blue	15	White/Blue	24	White/Black/Brown
7	Brown	16	White/Brown	25	White/Black/Orange
8	Orange	17	White/Orange	26	White/Black/Gray
9	Gray	18	White/Gray	27	White/Black/Violet

®Kynar of Pennwalt Corp.

alpha Audio and Communication Cables

UNSHIELDED INTERCOM CABLE UL2576, 80° C PAIRED CONDUCTORS, PLASTIC JACKET



For balanced intercom systems, annunciators, telephones. Suitable for outdoor installation. Each conductor 22 AWG tinned copper; color-coded PVC insulation; conductors twisted into pairs; gray polyvinylchloride jacket overall. Temp., −20° C to +80° C. Conductors' Color Code available on request.

SOLID CONDUCTORS, 22 GAUGE, 150 VOLTS

Alpha No.	Conductor		Nominal			Net per Spool•	
	Pairs	Strand	Wall	Jacket	O.D.	1000′	100′
1300	1	Solid	.010″	.032″	.154″	$ 49.45	$ 8.34
1302	2	Solid	.010″	.032″	.222″	98.38	15.42
1304	3	Solid	.010″	.032″	.234″	133.05	19.46
1305	4	Solid	.010″	.032″	.252″	176.11	25.68
1306	5	Solid	.010″	.032″	.280″	211.75	28.46
1307	6	Solid	.010″	.032″	.289″	240.87	32.76
1307/9	9	Solid	.010″	.032″	.334″	360.93	47.43
1308/11	11	Solid	.010″	.032″	.354″	451.44	58.29
1309	13	Solid	.010″	.032″	.374″	524.94	67.30
1309/15	15	Solid	.010″	.032″	.397″	603.36	79.01
1310	16	Solid	.010″	.032″	.425″	760.98	100.00
1311	19	Solid	.010″	.032″	.440″	754.38	100.00
1312	23	Solid	.010″	.032″	.481″	944.01	102.09
1313	27	Solid	.010″	.040″	.521″	1077.12	112.30
STRANDED CONDUCTORS, 22 GAUGE, 150 VOLTS							
1316	1	7/30	.010″	.032″	.164″	$ 85.95	$ 13.89
1317	2	7/30	.010″	.032″	.239″	115.98	18.18
1318	3	7/30	.010″	.032″	.252″	166.62	24.26
1319	4	7/30	.010″	.032″	.274″	219.95	31.18
1320	5	7/30	.010″	.032″	.304″	281.73	37.69
1322	6	7/30	.010″	.035″	.320″	285.87	39.09
1323	9	7/30	.010″	.035″	.370″	451.35	58.48
1324	11	7/30	.010″	.035″	.400″	669.69	86.25
1325	12	Solid	.010″	.035″	.410″	602.61	80.81
1327	15	7/30	.010″	.040″	.450″	736.11	94.77
1327/19	19	7/30	.010″	.040″	.480″	957.78	105.19
1328	23	7/30	.010″	.040″	.530″	1193.94	131.20
1329	27	7/30	.010″	.040″	.708″	1439.73	152.14
1329/41	41	7/30	.010″	.040″	.710″	2789.37	301.59
1330	51	7/30	.010″	.045″	.800″	3855.49	417.24
STRANDED CONDUCTORS, 18 GAUGE, UL2464, 300 VOLTS							
1131	1	Solid	.010″	.032″	.222″	$ 110.47	$ 17.87
1132	2	Solid	.010″	.035″	.347″	204.48	32.89
1133	3	16/30	.016″	.037″	.356″	340.57	46.50
1134	4	Solid	.010″	.040″	.412″	396.57	53.27
1135	5	Solid	.010″	.045″	.469″	526.17	84.01
1136	6	16/30	.016″	.045″	.540″	710.28	94.77
1138	8	Solid	.010″	.050″	.542″	825.66	100.00
1139	9	16/30	.016″	.055″	.616″	1005.21	106.18
1142	12	16/30	.016″	.055″	.654″	1338.75	146.95
1145	15	16/30	.016″	.060″	.760″	1614.19	177.24
1149	19	16/30	.016″	.070″	.830″	2100.69	230.95
1151	27	16/30	.016″	.070″	.965″	4574.82	469.69

FOIL SHIELDED JACKETED CABLE UL STYLE 2092, 2093, 2094*

Each conductor stranded tinned copper with color-coded polyethylene insulation; cabled and wrapped Mylar supported aluminum foil shield (100% coverage) with drain wire laid parallel; aluminum foil faces outward for maximum grounding contact; chrome gray polyvinylchloride jacket overall. Lightweight; reduced cable diameter; quick, easy termination to ground. Temp., −20° C to +60° C. Jacket, .020″ thick; wall .016″ thick, nom. (2442, 2444; Jkt. .030″; wall, .020″.) **Conductors' Color Code:** 1 = Black; 2 = Red; 3 = Clear; 4 = Green. Working volts, 400.

Alpha No.	Conductor			Nom. O.D.	Color Code	Net per Spool•	
	No.	Size	Strand			1000′	100′
2400	2	24	7/32	.160″	1, 3	$ 99.19	$15.05
2401	2	22	7/30	.170″	1, 3	102.81	16.38
2402	2	22	7/30	.170″	1, 2	102.18	18.24
2403	3	22	7/30	.185″	1–3	106.77	16.27
2404	4	22	7/30	.210″	1–4	301.06	42.37
2411	2	20	10/30	.186″	1, 3	106.77	16.13
2412	2	20	10/30	.186″	1, 2	131.07	20.60
2413	3	20	10/30	.205″	1–3	127.60	19.46
2414	4	20	10/30	.225″	1–4	304.50	41.02
2421	2	18	16/30	.210″	1, 3	127.71	20.24
2422	2	18	16/30	.210″	1, 2	160.83	22.64
2423	3	18	16/30	.230″	1–3	176.25	27.74
2424	4	18	16/30	.255″	1–4	363.85	48.36
2432	2	16	26/30	.245″	1, 2	225.57	27.32
2433	3	16	26/30	.270″	1–3	310.59	41.53
2442†	2	14	41/30	.310″	1, 3	354.19	46.19
2444†	2	12	65/30	.350″	1, 3	531.52	70.42

*2 Cond.—2092; 3 Cond.—2093; 4 Cond.—2094. †Not UL listed.
•Mylar of DuPont.

UNSHIELDED AUDIO CABLE MULTICONDUCTOR, PLASTIC JACKET #22 GAUGE, UL2576, 80° C, 150 VOLTS

For unbalanced intercom systems, low voltage relay control cable, PA systems, signal systems, electronic computors. Each conductor suitable for outdoor use. 22 AWG stranded tinned copper; color-coded polyvinylchloride insulation; conductors twisted; gray PVC jacket overall. Rated 200 volts. Temp., −20° C to +80° C. Also available in multi-conductor combination gauges. Write or phone for information and prices.

Alpha No.	Conductor		Nominal			Net per Spool•	
	No.	Strand	Wall	Jacket	O.D.	1000′	100′
1172	2	7/30	.010″	.032″	.164″	$ 56.13	$ 8.85
1173	3	7/30	.010″	.032″	.169″	70.99	10.68
1174	4	7/30	.010″	.032″	.194″	94.15	13.96
1175	5	7/30	.010″	.032″	.199″	115.66	16.89
1176	6	7/30	.010″	.032″	.209″	158.83	25.13
1177	7	7/30	.010″	.032″	.214″	175.98	25.86
1178	8	7/30	.010″	.032″	.224″	210.67	32.31
1179	9	7/30	.010″	.032″	.249″	251.25	36.75
1180	10	7/30	.010″	.032″	.259″	288.09	39.09
1181	12	7/30	.010″	.032″	.279″	337.36	45.30
1181/15	15	7/30	.010″	.032″	.304″	503.86	69.29
1181/20	20	7/30	.010″	.032″	.324″	670.75	90.04
1181/25	25	7/30	.010″	.032″	.364″	839.97	100.00
1181/30	30	7/30	.010″	.032″	.379″	935.55	103.06
1181/40	40	7/30	.010″	.032″	.439″	1276.02	140.38
1181/50	50	7/30	.010″	.035″	.500″	1550.34	161.01
1181/60	60	7/30	.010″	.035″	.530″	2175.87	261.27

SHIELDED AUDIO AND DATA CABLE WITH PLASTIC JACKET

Tinned-copper conductors with color-coded polyethylene insulation, twisted into pairs. Tinned-copper 22-gauge drain wire with Mylar®-supported aluminum foil shield, aluminum facing inward. Chrome gray PVC jacket overall. Capacitance: Between cond of a pair, 25 pF/ft; single cond to shield, 45 pF/ft. For audio, RF and pulse applications requiring superior circuit isolation. **Conductors' Color Code:** Combinations 1 thru 27 per Color Code Table Two**.

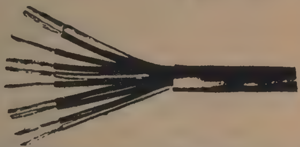
UL2493, 60° C, NO SPECIFIED VOLTAGE

Alpha No.	Conductor			Nominal			Net per Spool•	
	Pairs	No.	Strand	Wall	Jacket	O.D.	1000′	100′
#22 GAUGE								
6000	3	6	Solid	.010″	.045″	.275″	$ 259.87	$ 34.96
6002	6	12	Solid	.010″	.045″	.348″	558.30	73.33
6004	9	18	Solid	.010″	.045″	.401″	794.07	99.41
6006	11	22	Solid	.010″	.045″	.434″	916.24	100.00
6008	15	30	Solid	.010″	.045″	.495″	1295.91	135.55
6010	3	6	7/30	.010″	.045″	.292″	301.90	39.64
6012	6	12	7/30	.010″	.045″	.372″	652.39	81.95
6014	9	18	7/30	.010″	.045″	.430″	931.09	106.18
6016	11	22	7/30	.010″	.045″	.467″	1139.85	119.11
6018	15	30	7/30	.010″	.060″	.563″	1462.72	151.69
6020	19	38	7/30	.010″	.060″	.590″	1949.80	205.60
6022	27	54	7/30	.010″	.060″	.697″	2854.98	285.49
#20 GAUGE								
6033	3	6	10/30	.013″	.045″	.365″	$ 374.38	$ 50.49
6036	6	12	10/30	.013″	.045″	.500″	736.71	97.84
6039	9	18	10/30	.013″	.060″	.615″	1109.25	122.79
6041	11	22	10/30	.013″	.060″	.620″	1299.37	139.81
6042	12	24	10/30	.013″	.060″	.690″	1439.73	154.83
6045	15	30	10/30	.013″	.060″	.740″	1688.44	181.69
#18 GAUGE								
6023	3	6	16/30	.016″	.045″	.392″	$ 466.14	$ 62.61
6024	6	12	16/30	.016″	.060″	.585″	983.79	108.25
6025	9	18	16/30	.016″	.060″	.630″	1440.45	159.34
6026	12	24	16/30	.016″	.070″	.765″	1976.76	216.88
6027	15	30	16/30	.016″	.070″	.830″	2390.85	262.48

•Also available in spool of 500′, prices on request.

alpha Audio and Communication Cables

UNSHIELDED WITH PLASTIC JACKET
UL2509, 80° C, 300 VOLTS

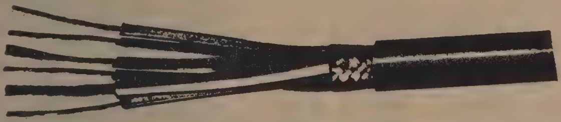


Tinned copper conductors with color-coded polyvinylchloride insulation, twisted, with gray polyvinylchloride jacket overall. Rated 350 volts except as otherwise noted. Temperature, −20° C to +80° C. For complete listing of this cable, write or phone for information.

Alpha No.	Conductor			Nominal		Net per Spool•	
	No.	Size	Strand	Wall	O.D.	1000′	100′
1793†	2	22	Solid	.010″	.130″	$ 80.13	$13.92
1797	2	18	Solid	.016″	.190″	210.57	31.94
1893†	2	22	7/30	.010″	.135″	63.18	10.36
1894†	3	22	7/30	.010″	.145″	76.41	15.29
1894/4†	4	22	7/30	.010″	.170″	104.32	15.49
1895	2	20	10/30	.016″	.180″	66.09	11.08
1896	3	20	10/30	.016″	.190″	107.16	17.07
1896/4	4	20	10/30	.016″	.215″	122.25	17.54
1897	2	18	16/30	.016″	.200″	109.69	16.74
1898	3	18	16/30	.016″	.210″	165.25	23.57
1898/4	4	18	16/30	.016″	.240″	183.25	25.50
1898/6	6	18	16/30	.016″	.290″	326.25	44.32
1898/8	8	18	16/30	.016″	.315″	443.52	56.42
1899	2	16	26/30	.016″	.225″	164.38	23.73
1891†	2	14	41/30	.016″	.260″	268.36	37.09
1891/3†	3	14	41/30	.016″	.280″	615.79	78.66

†Not UL Listed. •Also available in spool of 500′; prices on request.

SHIELDED GENERAL PURPOSE PLASTIC JACKET

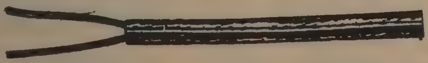


Each conductor, stranded tinned copper with color-coded polyethylene insulation .014″ thick, cabled with fillers where necessary; mylar wrap; braided, tinned copper shield; chrome gray polyvinylchloride jacket overall. Rated 600 volts. Temp., −20° C to +80° C.

Alpha No.	Conductor			Nom. Jacket		Net per Spool•	
	No.	Size	Strand	Th.	O.D.	1000′	100′
1712	2	20	26/34	.030″	.245″	$ 333.18	$ 45.26
1713	3	20	26/34	.035″	.250″	351.10	48.01
1715	4	20	26/34	.035″	.260″	393.51	53.09
1716	5	20	26/34	.035″	.275″	446.38	56.04
1717	6	20	26/34	.035″	.300″	981.72	102.03
1719	8	20	26/34	.035″	.330″	1332.16	135.21
1721	10	20	26/34	.035″	.375″	1638.75	167.68
1723	12	20	26/34	.035″	.380″	2590.12	262.66
1726	15	20	26/34	.035″	.410″	4017.30	404.91
1728	20	20	26/34	.035″	.455″	5233.15	527.62

•Also available in spool of 500′; prices on request.

PLASTIC SPEAKER CABLE COLORED AND CLEAR INSULATION

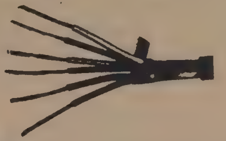


Conductors parallel, stranded bare copper, color coded polyvinylchloride insulation, conductors separate easily when slit apart. Designed for hi-fi speaker cable, miniature juke box speaker connection and rear auto speaker extension cable. Clear insulation will blend with interior room decor. Temp. rating, −20° C to +60° C. **Stock Colors:** Alpha No. **1944**, brown, black, white, gray, tan. **1945**, clear. **1948**, gray. **1949**, gray, clear. **1977**, brown, black, white, gray, clear. **1979**, clear.

Alpha No.	Conductors			Nominal O.D.	Net per Spool•	
	No.	Size	Strand		1000′	100′
1944	2*	24	7/32	.057″ x .120″	$ 27.39	$ 4.93
1945	2*	24	7/32	.057″ x .120″	29.91	6.08
1948	2*	22	Solid	.057″ x .120″	26.43	5.31
1949	2*	20	7/28	.073″ x .146″	44.98	7.59
1977	2	18	41/34	.115″ x .215″	108.70	11.88‡
1979†	2	18	41/34	.115″ x .215″	141.37	20.22‡

*1 conductor tinned, 1 bare. †UL Listed. ‡Also available in spools of 250′; prices on request.

SPIRAL SHIELDED JACKETED CABLE

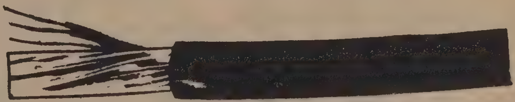


Tinned copper, stranded or solid conductor with color-coded polyvinylchloride insulation. Conductors twisted with spiral wrapped copper shield and gray polyvinylchloride jacket overall. Shield permits pigtail soldering. Strong and flexible for PA, sound, studio, amateur, and similar applications. Shield coverage, 95%. Jacket .016″ thick, nom. Temp., −20° C to +80° C. **Conductors' Color Code:** 1 = Black; 2 = Red; 3 = White; 4 = Green.

Alpha No.	Conductors			Work'g Volts	Nom. O.D.	Net per Spool•	
	No.	Size	Strand			1000′	100′
2255	2	22	Solid	350	.170″	$115.21	$ 16.89
2254/1	1	22	7/30	350	.115″	100.65	15.72
2254	2	22	7/30	350	.175″	123.10	17.82
2254/3	3	22	7/30	350	.190″	291.28	43.86
2254/4	4	22	7/30	350	.200″	493.09	69.67
2254/6	6‡	22	7/30	350	.235″	683.74	88.12
2256/1	1	20	10/30	350	.130″	112.93	18.40
2256	2	20	10/30	350	.195″	144.22	23.06
2256/3	3	20	10/30	350	.210″	334.78	46.16
2256/4	6‡	20	10/30	350	.225″	684.34	88.42
2256/6	4	20	10/30	350	.265″	888.75	100.00
2258/1	1	18	16/30	350	.135″	149.26	21.93
2258	2	18	16/30	350	.230″	189.93	27.48
2258/3	3	18	16/30	350	.235″	248.16	34.53
2258/4	4	18	16/30	350	.245″	329.86	42.73
2260	2	16	26/30	350	.240″	252.91	35.40
2260/3	3	16	26/30	350	.245″	786.15	100.00
2265*	2	14	41/30	450	.285″	771.48	99.34
2265/3*	3	14	41/30	450	.290″	816.82	100.00
2268*	2	12	65/30	450	.325″	802.62	100.00
2268/3*	3	12	65/30	450	.330″	1136.17	125.50

*Jacket, .020″ thick nom. •Also available in spool of 500′; prices on request. ‡Color Code: 5—yellow; 6—blue.

MULTIPAIR CABLE—INDIVIDUALLY FOIL SHIELDED UL STYLE 2464, 80° C, 300 V



Stranded, tinned copper conductors with color-coded .016″, nom., PVC insulation. Twisted into pairs. Mylar/aluminum foil shield with tinned copper drain wire. Gray PVC jacket.

Alpha No.	No. of Pairs	Jkt. Thk., Ins.	Nom. O.D., Ins.	Net per Spool		
				100′	500′	1000′
22 AWG—7/30 STRAND						
6052	2	.043	.316	$ 35.95	$ 127.56	$ 255.12
6053	3	.043	.331	47.43	169.21	338.43
6054	4	.043	.360	58.73	220.54	438.07
6056	6	.053	.431	94.68	353.82	707.62
6059	9	.053	.500	111.07	505.65	1011.28
6059/11	11	.053	.551	136.09	619.65	1239.30
6059/15	15	.053	.606	175.38	797.44	1594.89
6059/19	19	.063	.646	234.85	1069.47	2138.97
6059/27	27	.063	.776	330.70	1503.57	3007.42
6059/51	51	.075	.970	641.98	2920.00	5840.01
18 AWG—16/30 STRAND						
6062	2	.043	.381	$ 54.96	$ 196.17	$ 392.34
6063	3	.053	.421	73.15	260.71	521.43
6064	4	.053	.456	90.55	337.77	675.52
6066	6	.053	.526	117.27	533.20	1066.41
6069	9	.063	.628	171.37	781.11	1562.22
6069/11	11	.063	.686	215.80	980.73	1960.71
6069/15	15	.063	.766	284.89	1297.89	2594.38

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alpha UL/CSA/OSHA Computer Cables

UNSHIELDED UL STYLE 2343 CABLE

Appliance wiring cable suitable for use in electronic computers and business machines to 80° C. Conductor is stranded, annealed, tinned copper; insulation is 0.009″ thickness semi-rigid PVC to UL Style 1061, rated at 80° C, 300 V; tape wrap is 0.001″ clear mylar; nylon rip cord; jacket is gray 80° C PVC thickness as listed, marked at one foot intervals. Cable has superior flame retardancy and excellent resistance to acids, oils, moisture, solvents and fungus. Cable passes FR-1 flame test.

24 AWG MULTICONDUCTOR (7/32)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5200	5	.063	.250	$100.00	$ 432.75	$ 708.57
5201	7	.063	.265	101.11	459.60	766.06
5202	12	.063	.320	139.71	634.90	1058.08
5203	15	.063	.340	189.88	863.22	1438.68
5204	19	.063	.360	205.77	935.59	1559.32
5205	27	.063	.410	275.17	1250.89	2084.82
5206	37	.063	.445	379.26	1723.84	2873.10
5207	48	.063	.495	476.76	2167.09	3611.85
5208	60	.063	.535	569.11	2587.03	4311.79

24 AWG TWISTED PAIRS (7/32)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5230	5	.063	.345	$144.75	$ 656.86	$1094.79
5231	7	.063	.355	154.65	702.99	1171.59
5232	12	.063	.445	222.79	1013.17	1688.53
5233	15	.063	.485	284.80	1294.78	2158.05
5234	19	.063	.505	323.52	1470.57	2451.00
5235	27	.063	.575	438.90	1995.24	3325.41
5236	37	.063	.640	588.48	2674.96	4458.28
5237	48	.063	.710	734.62	3339.18	5565.30
5238	60	.063	.760	938.14	4264.41	7107.40

22 AWG MULTICONDUCTOR (7/30)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5210	5	.063	.270	$101.23	$ 460.00	$ 766.69
5211	7	.063	.285	108.57	493.62	822.72
5212	12	.063	.345	152.95	695.22	1158.73
5213	15	.063	.370	205.24	932.97	1555.00
5214	19	.063	.390	225.69	1026.03	1710.07
5215	27	.063	.440	300.73	1367.20	2278.68
5216	37	.063	.490	415.08	1886.67	3144.51
5217	48	.063	.545	518.52	2357.07	3928.44
5218	60	.063	.580	643.29	2924.19	4876.11

22 AWG TWISTED PAIRS (7/30)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5240	5	.063	.370	$147.81	$ 671.97	$1119.93
5241	7	.063	.385	171.10	777.90	1296.58
5242	12	.063	.485	251.31	1142.32	1903.93
5243	15	.063	.535	330.33	1501.59	2502.64
5244	19	.063	.565	371.28	1687.65	2812.81
5245	27	.063	.645	492.34	2238.16	3730.32
5246	37	.063	.735	661.24	3005.71	5009.64
5247	48	.063	.815	854.58	3884.47	6474.22
5248	60	.080	.915	1057.56	4807.18	8011.96

20 AWG MULTICONDUCTOR (19/32)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5220	5	.063	.295	$114.84	$ 522.09	$ 870.10
5221	7	.063	.320	128.43	584.10	973.47
5222	12	.063	.390	186.37	847.18	1387.05
5223	15	.063	.415	246.15	1119.06	1865.19
5224	19	.063	.440	279.16	1268.94	2114.97
5225	27	.063	.510	371.28	1687.65	2812.81
5226	37	.063	.560	511.14	2323.48	3872.44
5227	48	.063	.630	646.47	2938.57	4897.60
5228	60	.063	.680	785.82	3571.81	5953.00

20 AWG TWISTED PAIRS (19/32)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5250	5	.063	.420	$176.25	$ 801.19	$1335.36
5251	7	.063	.435	212.05	964.00	1606.69
5252	12	.063	.555	317.83	1444.74	2407.92
5253	15	.063	.610	385.50	1752.30	2920.47
5254	19	.063	.650	482.10	2191.65	3652.75
5255	27	.063	.750	644.77	2930.82	4884.69
5256	37	.080	.890	885.84	4026.64	6711.10
5257	48	.080	.990	1116.12	5073.42	8455.68
5258	60	.080	1.065	1379.91	6272.55	10454.34

SHIELDED UL STYLE 2343 CABLE

Appliance wiring cable suitable for use in electronic computers and business machines to 80° C. Conductor is stranded, annealed, tinned copper; insulation is 0.009″ thickness semi-rigid PVC to UL Style 1061, rated at 80° C, 300 V; tape wrap is 0.001″ clear mylar; shield is braided, tinned copper (85–90% coverage); nylon rip cord; jacket is gray 80° C PVC thickness as listed, marked at one foot intervals. Cable has superior flame retardancy and excellent resistance to acids, oils, moisture, solvents and fungus. Passes FR-1 flame test. Also available with alum./mylar foil shield.

24 AWG SHIELDED MULTICONDUCTOR (7/32)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5300	5	.063	.275	$112.51	$ 511.72	$ 852.85
5301	7	.063	.290	123.90	563.40	939.00
5302	12	.063	.345	167.68	762.42	1270.72
5303	15	.063	.365	220.65	1002.75	1671.28
5304	19	.063	.380	239.37	1088.04	1813.47
5305	27	.063	.430	314.97	1431.78	2386.36
5306	37	.063	.470	428.19	1946.11	3243.58
5307	48	.063	.520	536.17	2437.17	4061.98
5308	60	.063	.555	634.51	2884.33	4807.18

24 AWG SHIELDED TWISTED PAIRS (7/32)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5330	5	.063	.365	$156.61	$ 711.96	$1186.62
5331	7	.063	.380	179.14	814.36	1357.24
5332	12	.063	.465	261.76	1189.84	1983.07
5333	15	.063	.510	325.54	1480.02	2466.70
5334	19	.063	.525	366.90	1667.74	2779.54
5335	27	.063	.595	488.10	2218.75	3697.93
5336	37	.063	.670	638.82	2903.91	4839.88
5337	48	.063	.740	789.03	3586.63	5977.72
5338	60	.063	.815	991.24	4505.76	7509.73

22 AWG SHIELDED MULTICONDUCTOR (7/30)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5310	5	.063	.290	$123.90	$ 563.40	$ 939.00
5311	7	.063	.310	134.19	609.93	1016.58
5312	12	.063	.380	184.23	837.34	1395.60
5313	15	.063	.390	239.91	1090.66	1817.76
5314	19	.063	.410	262.66	1194.04	1990.03
5315	27	.063	.470	349.63	1589.47	2649.09
5316	37	.063	.510	475.36	2160.61	3601.03
5317	48	.063	.570	587.34	2669.80	4449.69
5318	60	.063	.610	709.60	3225.43	5375.73

22 AWG SHIELDED TWISTED PAIRS (7/30)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5340	5	.063	.395	$173.25	$ 787.59	$1046.47
5341	7	.063	.410	198.45	902.13	1503.54
5342	12	.063	.510	296.08	1345.90	2243.17
5343	15	.063	.555	360.13	1637.10	2864.91
5344	19	.063	.590	422.32	1914.01	3191.95
5345	27	.063	.680	548.22	2491.86	4153.05
5346	37	.063	.770	722.01	3281.83	5469.73
5347	48	.080	.890	917.77	4171.78	6952.98
5348	60	.080	.950	1132.33	5147.02	8578.47

20 AWG SHIELDED MULTICONDUCTOR (19/32)

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5320	5	.063	.325	$140.41	$ 638.32	$1063.95
5321	7	.063	.345	156.36	710.71	1184.53
5322	12	.063	.410	218.29	992.43	1654.09
5323	15	.063	.440	284.80	1294.78	2158.05
5324	19	.063	.465	317.26	1442.13	2403.57
5325	27	.063	.530	430.38	1956.43	3260.79
5326	37	.063	.585	577.68	2625.81	4376.40
5327	48	.063	.660	664.56	3020.62	5492.08
5328	60	.063	.715	872.17	3964.62	6607.66

20 AWG SHIELDED TWISTED PAIRS (19/32)

Alpha No.	No. of Pairs	Nominal Jacket Thickness, Inches	O.D., Inches	Net Each, Spool of		
				100′	500′	1000′
5350	5	.063	.440	$203.29	$ 924.09	$1540.15
5351	7	.063	.460	248.34	1128.57	1881.51
5352	12	.063	.580	366.90	1667.74	2779.54
5353	15	.063	.645	463.96	2109.93	3515.14
5354	19	.063	.680	535.29	2433.31	4055.55
5355	27	.063	.785	704.28	3201.37	5335.62
5356	37	.080	.930	945.69	4298.56	7164.28
5357	48	.080	1.030	1190.28	5410.39	9017.34
5358	60	.080	1.100	1452.57	6602.65	11004.51

alpha UL/CSA/OSHA Cables

MULTICONDUCTOR CABLE

UL STYLE 2464, 300 V, 80° C

Wiring cable suitable for industrial control equipment, business machines and many other uses. Conductor is stranded, annealed, tinned copper; insulation is PVC rated at 80° C (105° C for Type 2501) and 300 volts (600 V for Type 2501); tape wrap is 0.001" clear mylar; nylon rip cord; jacket is gray PVC, thickness as listed, and marked at one foot intervals.

BRAIDED SHIELD

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of 100′	Net Each, Spool of 500′	Net Each, Spool of 1000′
20 AWG—10/30 STRAND						
5152	2	.032	.235	$ 66.03	$ 261.63	$ 418.57
5153	3	.032	.245	75.04	297.34	475.75
5154	4	.032	.265	82.52	327.18	523.54
5156	6	.032	.315	100.00	414.13	662.64
5158	8	.032	.335	100.00	480.45	768.73
5160	10	.032	.385	118.59	570.22	912.36
5160/15	15	.032	.425	166.36	800.02	1280.01
5160/20	20	.032	.470	209.31	1006.14	1609.89
5160/25	25	.032	.535	257.26	1237.03	1979.23
5160/30	30	.032	.565	297.81	1431.94	2291.16
5160/40	40	.050	.665	388.09	1866.01	2985.61
5160/50	50	.050	.735	466.92	2244.90	3591.88
5160/60	60	.050	.790	550.71	2647.71	4236.33
5160/70	70	.080	.925	664.71	3195.82	5113.35
5160/80	80	.080	.955	745.63	3585.00	5736.00
5160/90	90	.080	1.000	823.38	3958.80	6334.03
5160/00	100	.080	1.070	911.49	4382.44	7011.93
18 AWG—16/30 STRAND						
5162	2	.032	.255	$ 72.75	$ 288.33	$ 461.31
5163	3	.032	.265	84.45	334.62	535.50
5164	4	.032	.290	99.90	396.00	633.55
5166	6	.032	.340	103.81	499.32	798.96
5168	8	.032	.365	126.18	606.60	970.57
5170	10	.032	.420	156.18	750.79	1201.23
5170/15	15	.032	.470	216.13	1039.14	1662.69
5170/20	20	.032	.530	274.84	1321.38	2114.26
5170/25	25	.050	.625	341.73	1643.02	2628.90
5170/30	30	.050	.660	396.18	1904.65	3047.49
5170/40	40	.050	.735	504.34	2424.84	3879.81
5170/50	50	.050	.805	605.07	2909.05	4654.47
5170/60	60	.080	.935	759.10	3649.68	5839.42
5170/70	70	.080	1.015	877.39	4218.49	6749.62
5170/80	80	.080	1.050	983.62	4729.03	7566.48
5170/90	90	.080	1.095	1090.68	5243.68	8389.90
16 AWG—26/30 STRAND						
5172	2	.032	.285	$ 86.50	$ 342.91	$ 548.67
5173	3	.032	.300	100.00	422.26	675.61
5174	4	.032	.330	103.56	497.95	796.72
5176	6	.032	.385	137.14	659.47	1055.17
5178	8	.032	.415	173.71	835.15	1336.20
5180	10	.032	.480	212.76	1022.85	1636.50
5180/15	15	.032	.545	296.43	1425.13	2280.16
5180/20	20	.050	.645	389.31	1871.73	2994.79
5180/25	25	.050	.720	471.07	2264.80	3623.73
5180/30	30	.050	.760	549.64	2642.62	4228.17
5180/40	40	.080	.910	741.30	3564.01	5702.41
5180/50	50	.080	1.000	904.54	4348.80	6958.06
5180/60	60	.080	1.070	1066.87	5129.29	8206.96
COMBINATION GAUGES						
5141	6*	.032	.310	$100.00	$403.77	$646.03
5142	7†	.032	.325	100.00	434.55	695.26
5143	8‡	.032	.390	100.00	648.99	750.45

UNSHIELDED

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of 100′	Net Each, Spool of 500′	Net Each, Spool of 1000′
20 AWG (10/30) STRAND						
5052	2	.032	.220	$ 36.27	$ 143.85	$ 230.19
5053	3	.032	.225	44.12	174.81	279.66
5054	4	.032	.245	52.03	206.20	329.94
5056	6	.032	.285	69.72	276.28	442.03
5058	8	.032	.315	83.70	331.74	530.76
5060	10	.032	.360	100.00	401.37	642.22
5060/15	15	.032	.405	120.76	580.71	929.10
5060/20	20	.032	.450	155.80	749.16	1198.63
5060/25	25	.032	.500	194.44	934.90	1495.89
5060/30	30	.032	.535	230.50	1108.12	1773.00
5060/40	40	.050	.635	312.96	1504.69	2407.50
5060/50	50	.050	.695	386.73	1859.40	2975.01
5060/60	60	.050	.750	459.19	2207.79	3737.76
5060/70	70	.080	.885	557.25	2679.22	4286.71
5060/80	80	.080	.915	630.78	3032.64	4852.27
5060/90	90	.080	.955	704.65	3387.76	5420.43
5060/00	100	.080	1.030	780.69	3753.54	6005.68
18 AWG (16/30) STRAND						
5062	2	.032	.230	$ 42.90	$ 169.99	$ 272.01
5063	3	.032	.245	54.05	214.36	343.02
5064	4	.032	.265	65.48	259.53	415.21
5066	6	.032	.320	88.62	351.27	562.02
5068	8	.032	.345	100.00	441.66	706.57
5070	10	.032	.395	111.42	535.90	857.43
5070/15	15	.032	.445	162.22	780.03	1248.06
5070/20	20	.032	.495	213.16	1024.99	1639.98
5070/25	25	.032	.555	263.34	1266.15	2025.76
5070/30	30	.050	.625	322.84	1552.26	2483.67
5070/40	40	.050	.700	423.82	2037.76	3260.41
5070/50	50	.050	.770	525.52	2526.66	4042.68
5070/60	60	.080	.895	650.08	3125.55	5000.91
5070/70	70	.080	.975	754.63	3628.08	5804.94
5070/80	80	.080	1.010	854.64	4108.95	6574.44
5070/90	90	.080	1.055	955.95	4595.92	7351.84
5070/00	100	.080	1.135	1059.76	5095.08	8152.12
16 AWG (26/30) STRAND						
5072	2	.032	.260	$ 53.73	$ 213.15	$ 341.04
5073	3	.032	.275	71.23	282.33	451.74
5074	4	.032	.300	88.42	350.28	560.46
5076	6	.032	.365	101.43	487.81	780.49
5078	8	.032	.395	129.54	623.04	996.84
5080	10	.032	.455	177.72	854.52	1367.26
5080/15	15	.032	.515	233.47	1122.55	1796.14
5080/20	20	.050	.610	316.17	1520.16	2432.26
5080/25	25	.050	.680	390.90	1879.51	3007.27
5080/30	30	.050	.725	463.80	2229.94	3567.93
5080/40	40	.080	.875	635.31	3054.58	4887.33
5080/50	50	.080	.960	785.32	3775.57	6040.96
5080/60	60	.080	1.030	935.02	4495.42	7192.65
COMBINATION GAUGES						
5041	6*	.032	.280	$53.44	$211.72	$338.77
5042	7†	.032	.295	73.00	289.27	462.88
5043	8‡	.032	.365	79.86	316.59	506.49

*Contains four #22 (7/30) and two #18 (16/30). †Contains five #22 (7/30) and two #18 (16/30). ‡Contains six #22 (7/30) and two #18 (16/30).

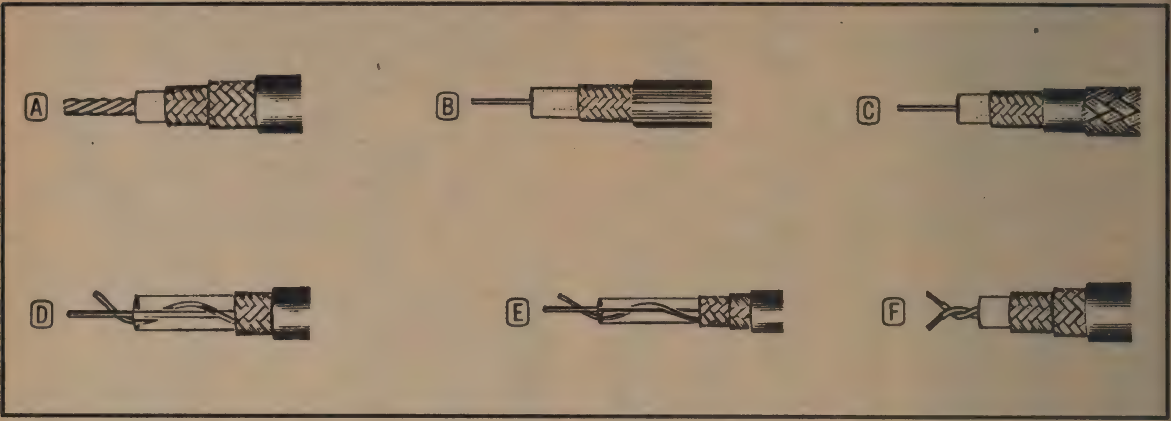
ALSO AVAILABLE IN #24 AND #22 AWG. PRICES AVAILABLE ON REQUEST.

UL STYLE 2464 FOIL SHIELD, 300 V, 80° C

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of 100′	Net Each, Spool of 500′	Net Each, Spool of 1000′
20 AWG—10/30 STRAND						
5462	2	.032	.225	$ 45.63	$ 182.41	$ 307.32
5463	3	.032	.230	53.49	213.34	356.77
5464	4	.032	.250	61.41	244.74	407.05
5466	6	.032	.290	79.10	314.82	519.16
5468	8	.032	.315	93.06	370.27	607.86
5470	10	.032	.365	100.00	439.95	719.34
5470/15	15	.032	.410	128.47	619.24	1006.21
5470/20	20	.032	.455	163.51	787.69	1275.73
5470/25	25	.032	.505	202.15	890.34	1572.97
5470/30	30	.032	.535	238.21	1146.67	1850.11
5470/40	40	.053	.640	320.67	1543.24	2484.63
5470/50	50	.053	.715	394.44	1897.95	3052.08
5470/60	60	.053	.755	466.93	2246.34	3814.86
5470/70	70	.083	.890	564.96	2717.77	4363.83
5470/80	80	.083	.920	638.50	3071.20	4929.36
5470/90	90	.083	.960	712.36	3426.30	5497.54
5470/00	100	.083	1.035	788.40	3792.09	6082.74
18 AWG—16/30 STRAND						
5382	2	.032	.235	$ 52.25	$ 208.54	$ 349.12
5383	3	.032	.250	63.43	252.91	420.12
5384	4	.032	.270	74.86	298.08	492.30
5386	6	.032	.325	97.95	389.71	639.13
5388	8	.032	.350	100.00	480.21	783.69
5390	10	.032	.400	119.14	574.47	934.53

Alpha No.	No. of Conds.	Nominal Jacket Thickness, Inches	Nominal O.D., Inches	Net Each, Spool of 100′	Net Each, Spool of 500′	Net Each, Spool of 1000′
18 AWG—16/30 STRAND (CONT.)						
5390/15	15	.032	.450	$169.93	$ 818.59	$1325.14
5390/20	20	.032	.495	220.89	1063.53	1717.08
5390/25	25	.053	.605	271.05	1304.70	2102.89
5390/30	30	.053	.635	330.57	1590.82	2560.75
5390/40	40	.053	.705	431.53	2076.31	3337.53
5390/50	50	.053	.785	533.23	2566.57	4119.72
5390/60	60	.083	.900	657.81	3164.10	5077.98
5390/70	70	.083	.980	762.34	3666.63	5882.05
5390/80	80	.083	1.015	862.36	4147.51	6651.52
5390/90	90	.083	1.060	963.67	4634.46	7428.96
16 AWG—26/30 STRAND						
5362	2	.032	.265	$ 63.08	$ 251.71	$ 349.12
5363	3	.032	.280	80.61	320.89	528.84
5364	4	.032	.305	97.77	388.83	637.57
5366	6	.032	.365	109.15	526.36	857.61
5368	8	.032	.390	137.26	661.59	1073.94
5370	10	.032	.455	185.43	893.08	1444.36
5370/15	15	.032	.520	241.20	1161.10	1873.23
5370/20	20	.053	.615	323.89	1558.69	2509.38
5370/25	25	.053	.685	398.61	1916.01	3084.37
5370/30	30	.053	.720	471.52	2268.49	3645.03
5370/40	40	.083	.865	643.02	3093.13	4950.55
5370/50	50	.083	.965	793.02	3814.12	6118.74
5370/60	60	.083	1.026	942.73	4534.00	7265.64

alpha RG/U Coaxial Cable



POLYETHYLENE DIELECTRIC RG/U COAXIAL CABLES

Factory tested to assure physical and electrical performance. Production runs are subjected to electrical property tests to determine capacitance, impedance and attenuation. Further tests are made for corona extinction and physical properties. Dielectrics and insulating jackets are subjected to aging and flow tests in a special forced-draft oven; plus, exposure to extreme low temperatures in sub-zero environmental chamber to determine cold-bend properties. All have solid polyethylene dielectric (VP, 65.9%) except as noted. Dimensions shown are max.

Alpha No.	MIL No. RG-	Fig.	Center Conductor			Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap., pF/ft.	Net Price per Put-Up		
			Mat.*	Strand	O.D., In.	1st	2nd	Mat.*	O.D., In.				100′ Put-Up	500′ Put-Up	1000′ Put-Up
9006A	6A/U	A	CW	1	.0285	SC	C	NCV	.336	2700	75	20	**$307.02**	**$1498.71**	**$2943.63**
9008♦	8/U	B	C	7/.0285	.086	C	......	V	.415	5000	52	29.5	**47.39**	**155.04**	**310.06**
9008A♦	8A/U	B	C	7/.0285	.086	C	......	NCV	.415	5000	52	29.5	**72.76**	**249.31**	**464.73**
9009B	9B/U	A	SC	7/.0285	.086	SC	SC	NCV	.430	5000	50	30	**422.97**	**2074.45**	**3862.30**
9011	11/U	B	TC	7/.0159	.048	C	......	V	.415	5000	75	20.5	**52.16**	**169.21**	**338.43**
9011A♦	11A/U	B	TC	7/.0159	.048	C	......	NCV	.412	5000	75	20.5	**63.25**	**221.76**	**413.32**
9012A‡	12A/U	C	TC	7/.0159	.048	C	......	NCV	.412	5000	75	20.5	**100.00**	**404.17**	**793.95**
9014A	14A/U	A	C	1	.102	C	C	NCV	.558	7000	52	29.5	**148.66**	**722.79**	**1419.27**
9017A	17A/U	B	C	1	.188	C	......	NCV	.885	11000	52	29.5	**329.62**	**1603.14**	**3206.37**
9019A	19A/U	B	C	1	.250	C	......	NCV	1.135	14000	52	29.5	**524.79**	....	**4809.57**
9055	55/U	A	C	1	.032	TC	TC	NP	.206	1900	53.5	28.5	**49.94**	**188.19**	**369.48**
9055B	55B/U	A	SC	1	.032	TC	TC	BP	.206	1900	53.5	28.5	**55.53**	**215.64**	**422.95**
9058♦	58/U	B	C	1	.032	TC	......	V	.200	1900	53.5	28.5	**17.75**	**51.97**	**103.95**
9058A	58A/U	B	TC	19/.0071	.0375	TC	......	V	.199	1900	50	29.5	**21.84**	**62.62**	**125.19**
9058C	58C/U	B	TC	19/.0071	.0375	TC	......	NCV	.199	1900	50	29.5	**29.45**	**82.38**	**153.57**
9059♦	59/U	B	CW	1	.0253	C	......	V	.250	2300	73	21	**24.72**	**64.63**	**118.05**
9059B♦	59B/U	B	CW	1	.023	C	......	NCV	.246	2300	75	20.5	**30.52**	**86.10**	**160.50**
9062•♦	62/U	D	CW	1	.025	C	......	V	.250	750	93	13.5	**18.97**	**70.92**	**137.66**
9062A•	62A/U	D	CW	1	.025	C	......	V	.249	750	93	13.5	**15.47**	**73.66**	**147.31**
9062B•♦	62B/U	D	CW	1	.025	TC	TC	BP	.250	750	93	13.5	**43.92**	**136.68**	**273.30**
9063B•	63B/U	D	CW	1	.0253	C	......	NCV	.415	1000	125	10	**89.45**	**316.74**	**622.26**
9071B•♦	71B/U	E	CW	1	.025	C	TC	BP	.250	750	93	13.5	**56.53**	**205.18**	**403.09**
9174	174/U	B	CW	7/.0063	.019	TC	......	V	.105	1500	50	30	**16.71**	**49.57**	**99.15**
9212	212/U	A	SC	1	.056	SC	SC	NCV	.336	3000	50	29.5	**332.10**	**1544.32**	**3088.62**
9213♦	213/U	B	C	7/.0296	.090	C	......	NCV	.412	5000	50	30.5	**73.04**	**249.31**	**464.56**
9214	214/U	A	SC	7/.0296	.090	SC	SC	NCV	.432	5000	50	30.5	**351.63**	**1457.56**	**2915.14**
9215‡	215/U	C	C	7/.0296	.090	C	......	NCV	.412	5000	50	30.5	**100.00**	....	**839.76**
9217	217/U	A	C	1	.106	C	C	NCV	.555	7000	50	30	**134.55**	**633.79**	**1267.60**
9218	218/U	B	C	1	.195	C	......	NCV	.880	11000	50	30	**334.60**	**1565.80**	**3131.59**
9219§	219/U	C	C	1	.195	C	......	NCV	.880	11000	50	30	**479.28**	....	**4352.46**
9223♦	223/U	A	SC	1	.036	SC	SC	NCV	.216	1900	50	30	**128.28**	**534.40**	**1108.77**

MINIATURE TEFLON® COAXIAL CABLES

Temp., −65° C to +200° C.

Alpha No.	MIL No. RG-	Fig.	Center Conductor			Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap., pF/ft.	Net Price per Put-Up		
			Mat.*	Strand	O.D., In.	1st	2nd	Mat.*	O.D., In.				100′ Put-Up	500′ Put-Up	1000′ Put-Up
9178B	178B/U	B	SCW	7/.004	....	SC	......	FEP	.075	1000	50 ± 2	27.9	**$ 75.17**	**$269.34**	**$ 538.63**
9179B	179B/U	B	SCW	7/.004	....	SC	......	FEP	.105	1200	75 ± 3	20.4	**91.42**	**327.34**	**654.75**
9180B	180B/U	B	SCW	7/.004	....	SC	......	FEP	.145	850	93 ± 2	15.3	**126.82**	**551.16**	**1102.35**
9187A	187A/U	B	SCW	7/.004	....	SC	......	TFE	.110	1200	75 ± 3	19.5	**98.03**	**365.85**	**730.62**
9188A	188A/U	B	SCW	7/.0067	....	SC	......	TFE	.110	1200	50 ± 2	27.5	**98.03**	**353.59**	**707.26**
9195A	195A/U	B	SCW	7/.004	....	SC	......	TFE	.155	1500	95 ± 3	14.5	**177.39**	**842.35**	**1684.66**
9196A	196A/U	B	SCW	7/.004	....	SC	......	TFE	.080	1000	50 ± 2	28.5	**77.30**	**258.54**	**517.02**

*Materials—Conductors and Shields: C, copper; CW, copper-covered steel; SC, silver-covered copper; SCC, silver-coated cadmium bronze; SCW, silver-plated, Copperweld®; TC, tinned copper. Jackets: BP, black polyethylene, Type IIIA; FEP, extruded FEP Teflon; NCV, non-contaminating polyvinylchloride, Type IIA; NP, natural polyethylene, Type III; NY, nylon; PE, solid polyethylene; TFE, fused TFE Teflon tape; V, polyvinylchloride, Type I. ‡Armor .475″ O.D. alum. wire. §Armor .945″ O.D. alum. wire. •Dielectric is SPP (semi-solid polyethylene), 84% VP. ®Reg. TM's: Teflon of DuPont; Copperweld of Copperweld Steel Corp. ♦Available in 1000-ft put-ups.

alpha FIT® Shrinkable Tubing

Type	Chemistry	Max. Shrinkage Ratio	Oper. Temp. °C	Dielectric Strength V/mil	Volume Resistivity Ohm-cm.	Tensile Strength PSI	MIL-I-23053 Suffix
FIT-221	Polyolefin	50% @ 121° C	−55 to +135	1300	10^{15}	2500	/5A
FIT-105	PVC	50% @ 175° C	−35 to +105	750	10^{12}	2600	/2C
FIT-225	Polyolefin	50% @ 135° C	−55 to +125	750	....	2000	/6 Class 3
FIT-295	Polyolefin	50% @ 135° C	−55 to +135	800	10^{16}	2500	/6B#
FIT-300	Polyolefin	*	−55 to +110	1100	10^{15}	2500	/4B Class 1
FIT-321	Polyolefin	30% @ 125° C	−55 to +125	350	10^{14}	2500	C/4B Class 3
FIT-260	Polyolefin	50% @ 121° C	−55 to +135	1300	....	2500	....
FIT-350	Kynar§	50% @ 175° C	−55 to +170	1000	2 x 10^{15}	8000	/8A
FIT-400	Teflon‡	80% @ 176° C	−67 to +204	2000	2 x 10^{11}	3100	/11A
FIT-500	Teflon	33% @ 327° C	−65 to +260	2000	10^{11}	6000	/12
FIT-600	Neoprene	57% @ 175° C	−70 to +90	300	10^{9}	1500	/1A

*From 15 to 40% depending on size. †Transparent. #Class 1 for colors; Class 2 for clear.

FIT-221 IRRADIATED POLYOLEFIN TUBING

Simple-to-use, all-purpose extruded tubing gives tight mechanical bond with thermal stability. Will not cold-flow or melt—retains form stability throughout its temperature range. Material is flammable but will not support combustion. Resistant to fuels, oils, acids, alkalis, and solvents. **Ultimate Elongation:** 400% nominal. **Longitudinal Shrinkage:** 5% nominal. **Environmental Resistance:** Will not support fungus growth. Non-corrosive. Max. water absorption, 0.5%. **Colors:** Specify clear, black, white, red, yellow, or blue.

Alpha No. FIT-	Size, Inches			4 Ft. Lengths		6″ Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net	Std. Pkg.	Pkg. Net
221-3/64″	.046	.023	.016	100′	$34.16	20′	$7.99
221-1/16″	.063	.031	.017	100′	36.40	18′	7.99
221-3/32″	.093	.046	.020	100′	41.26	16′	7.99
221-1/8″	.125	.062	.020	100′	43.68	14′	7.99
221-3/16″	.187	.093	.020	100′	53.02	12′	7.99
221-1/4″	.250	.125	.025	100′	67.13	10′	7.99
221-3/8″	.375	.187	.025	100′	74.77	8′	7.99
221-1/2″	.500	.250	.025	20′	16.89	7′	7.99
221-3/4″	.750	.375	.030	20′	22.56	6′	7.99
221-1″	1.000	.500	.035	20′	31.63	4′	7.99
221-1½″	1.500	.750	.040	20′	54.23	2.5′	7.99
221-2″	2.000	1.000	.045	20′	74.84	1.5′	7.99
221-3″	3.000	1.500	.050	8′	47.42	1′	7.99
221-4″	4.000	2.000	.055	8′	69.10	.5′	7.99

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Assorted, standard colors and sizes in 6″ lengths. all identified.

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-221-MS1	3/64″–3/16″ (5 sizes)	6 per size (30 total)	$ 9.39
FIT-221-MS2	1/4″–3/4″ (4 sizes)	4 per size (16 total)	18.84
FIT-221-MS3	1″–4″ (5 sizes)	2 per size (10 total)	17.55

FIT-105 POLYVINYLCHLORIDE TUBING

High flexibility, strength, and 50% shrinkage make FIT-105 suitable for insulating components and cables with wide shape and size variations. Shrinks evenly and will not split, even over sharp edges. **Elongation:** 250% nominal. **Longitudinal Shrinkage:** 10% nominal. **Environmental Resistance:** Inert to fungus; excellent resistance to fuel, oil, hydraulic fluid, solvents, acids, and alkalis. Self-extinguishing. Non-corrosive. **Color:** Black.

Alpha No. FIT-	Size, Inches			Net Price per Pkg. of		
	Min. I.D.*	Recov. I.D.†	Wall Thk.	25′	100′	200′
105-3/64″	.046	.023	.020	$ 6.79	$ 25.00	$120.28‡
105-1/16″	.062	.031	.020	7.30	26.84	129.09‡
105-3/32″	.093	.046	.020	8.26	30.35	59.50
105-1/8″	.125	.062	.025	8.69	32.11	62.99
105-3/16″	.187	.093	.025	10.64	39.10	76.62
105-1/4″	.250	.125	.025	13.40	49.46	96.92
105-3/8″	.375	.187	.030	14.93	55.04	107.90
105-1/2″	.500	.250	.030	16.84	62.03	......
105-3/4″	.775	.375	.035	22.59	83.12	......
105-1″	1.000	.500	.040	31.66	116.37	......
105-1½″	1.500	.750	.045	59.61	219.41	......
105-2″	2.000	1.000	.050	82.29§	157.66#	......

‡Pkg. of 500′. §Pkg. of 10′ available at **$34.42.** #Pkg. of 50′.

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-105-MS1	3/64″–1/4″ (6 sizes)	10 per size (60 total)	$10.52
FIT-105-MS2	3/8″–1″ (4 sizes)	10 per size (40 total)	16.58
FIT-105-MS3	1½″ and 2″ only	7 per size (14 total)	16.34

FIT-321 ADHESIVE-WALL POLYOLEFIN TUBING

A dual-wall, irradiated tubing that shrinks, upon application of heat, to 33% of its original diameter. The inner wall melts and fills all crevices of the covered object while outer wall shrinks. When cool, the entire mass becomes a tough molding that provides excellent environmental protection. **Ultimate Elongation:** 400% nominal. **Longitudinal Shrinkage:** 10% nominal. **Color:** Black.

PACKAGED ASSORTMENT IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-321-MS1	1/8″–1″ (4 sizes)	5 per size (20 total)	$24.00

FIT-225 IRRADIATED POLYOLEFIN TUBING

Semi-rigid tubing can be used with automatic applicator machines which apply pre-cut tubing onto terminals at high speed. Unaffected by common fluids and solvents. Non-corrosive; self-extinguishing; will not support fungus growth. Water absorption, 0.2% max. **Elongation:** 500%. **Longitudinal Shrinkage:** 5% nominal. **Colors:** Black, white.

Alpha No. FIT-	Size, Inches			4 Ft. Lengths		6″ Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net	Std. Pkg.	Pkg. Net
225-3/64″	.046	.023	.020	100′	$34.58	40′	$8.35
225-1/16″	.063	.031	.020	100′	36.84	36′	8.35
225-3/32″	.093	.046	.020	100′	42.70	32′	8.35
225-1/8″	.125	.062	.020	100′	45.21	28′	8.35
225-3/16″	.187	.093	.020	100′	54.87	24′	8.35
225-1/4″	.250	.125	.025	100′	69.48	20′	8.35
225-3/8″	.375	.187	.025	100′	77.40	16′	8.35
225-1/2″	.500	.250	.025	20′	17.47	14′	8.35
225-3/4″	.750	.375	.030	20′	23.33	12′	8.35
225-1″	1.000	.500	.035	20′	32.73	8′	8.35

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-225-MS1	1/16″–3/16″ (4 sizes)	5 per size (20 total)	$ 9.62
FIT-225-MS2	1/4″–3/4″ (4 sizes)	5 per size (20 total)	19.30

FIT-295 POLYOLEFIN TUBING

Tubing provides maximum strength at stress points such as solder joints, crimps, and terminations. **Ultimate Elongation:** 300%. **Longitudinal Shrinkage:** 5% nominal. **Environmental Resistance:** Inert to fungus; resistant to fuel, oil, solvents, acids, and alkalis; non-corrosive. Self-extinguishing. **Colors:** All sizes available in black and clear as well as one additional color as shown in table below.

Alpha No. FIT-	Color	Size, Inches			4 Ft. Lgths.		6″ Lgths.	
		Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net	Std. Pkg.	Pkg. Net
295-3/64″	Yellow	.046	.023	.020	100′	$ 52.73	20′	$8.61
295-1/16″	White	.063	.032	.020	100′	55.32	18′	8.61
295-3/32″	Blue	.093	.045	.020	100′	62.24	16′	8.61
295-1/8″	Red	.125	.063	.020	100′	66.60	14′	8.61
295-3/16″	Green	.187	.093	.025	100′	81.40	12′	8.61
295-1/4″	Slate	.250	.125	.025	100′	101.47	10′	8.61
295-3/8″	Brown	.375	.187	.030	100′	112.81	8′	8.61
295-1/2″	White	.500	.250	.030	20′	25.57	7′	8.61

FIT-300 IRRADIATED POLYOLEFIN TUBING

OUTER WALL SHRINKS . . . INNER WALL MELTS

Surface irradiated tubing has been developed to answer the need for easy-to-use, permanent encapsulation and jacketing material. Because only the outer wall of this tubing is irradiated, when heat is applied, only this outer wall shrinks. The inner wall, instead of shrinking, melts and the viscous plastic released by the heat, encapsulates the wire or component placed in the tubing. The pressure created by the outer wall shrinkage forces the melted plastic into every orifice, eliminating voids and resulting, when cooled, in a solid, homogenous molding. Alpha HG-1 hot air gun is recommended for heating tubing. However, excellent results may be achieved by use of an oven, hot liquids, soldering iron or even the flame of a match. **Ultimate Elongation:** 400% nominal. **Longitudinal Shrinkage:** 10% nominal. **Colors:** All colors available in black as well as one additional color as shown in table below.

Alpha No. FIT-	Black or Color	Size, Inches			4 Ft. Lgths.		6″ Lgths.	
		Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Net	Pkg. Net	Std. Pkg.	Pkg. Net
300-1/8″	Brown	.125	.023	.038	100′	$103.38	7′	$6.70
300-3/16″	Gray	.187	.060	.043	100′	126.42	6′	6.70
300-1/4″	White	.250	.080	.047	100′	157.29	5′	6.70
300-3/8″	Red	.375	.135	.050	100′	175.20	4′	6.70
300-1/2″	Blue	.500	.195	.055	20′	41.32	3′	6.70
300-3/4″	Yellow	.750	.313	.065	20′	63.79	2′	6.70
300-3/10″	Blue	.300	.050	.100	100′	359.25	2′	6.70

Alpha No. FIT-	Size, Inches			4 Ft. Lengths		6″ Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net	Std. Pkg.	Pkg. Net
321-1/8″	.120	.040	.040	100′	$113.38	14′	$17.59
321-1/4″	.240	.080	.040	100′	172.69	10′	17.59
321-1/2″	.470	.160	.070	20′	45.30	7′	17.59
321-1″	.940	.320	.100	20′	92.46	4′	17.59
321-1½″	1.57	.510	.100	20′	152.15	2.5′	17.59

*Before shrinking. †After shrinking. ‡Registered Du Pont trademark. §Registered Pennwalt trademark.

alpha Fit® Shrinkable Tubing

FIT-260 POLYOLEFIN TUBING
GREEN/YELLOW FOR GROUND IDENTIFICATION

Tubing formulated by dual-color extrusion to provide positive identification of ground wires or terminals in accordance with internationally accepted standards. Colors will not fade, smear, or rub off. Approved for use by the NFPA as a ground lead identification. **Ultimate Elongation:** 400%. **Longitudinal Shrinkage:** 5% nominal. **Water Absorption:** 0.1% max.

Alpha No.	Size, Inches			6 In. Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net
FIT-260-⅛″	.140	.062	.024	14′	$11.93
FIT-260-¼″	.250	.110	.024	10′	11.93
FIT-260-⅜″	.344	.140	.026	8′	11.93
FIT-260-½″	.437	.185	.027	7′	11.93

FIT-350 IRRADIATED KYNAR TUBING

High-temperature, thin-wall tubing with excellent cut-through and abrasion resistance. Semi-rigid, polyvinylidene fluoride. The transparency permits easy inspection of covered components. **Ultimate Elongation:** 300%. **Longitudinal Shrinkage:** 5% nominal. **Water Absorption:** 0.5% max. **Color:** Clear.

Alpha No. FIT-	Dimensions, Inches			4 Ft. Lengths		6 In. Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net	Std. Pkg.	Pkg. Net
350-3⁄64″	.046	.023	.010	100′	$ 64.90	16′	$10.97
350-1⁄16″	.063	.031	.010	100′	70.65	14′	10.97
350-3⁄32″	.093	.046	.010	100′	82.90	12′	10.97
350-⅛″	.125	.062	.010	100′	90.46	10′	10.97
350-3⁄16″	.187	.093	.010	100′	140.75	8′	10.97
350-¼″	.250	.125	.012	100′	177.23	6′	10.97
350-⅜″	.375	.187	.012	100′	232.98	4′	10.97
350-½″	.500	.250	.012	20′	69.29	2′	10.97
350-¾″	.750	.375	.017	20′	127.42	1′	10.97
350-1″	1.000	.500	.019	20′	234.27	.5′	10.97

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-350-MS1	3⁄64″–3⁄16″ (5 sizes)	5 per size (25 total)	$ 8.13
FIT-350-MS2	¼″–1″ (5 sizes)	5 per size (25 total)	46.69

FIT-400 TEFLON HEAT SHRINKABLE TUBING

Requires less heat for use with heat-sensitive components, solid-state devices, solder joints. **Ultimate Elongation:** 300%. **Longitudinal Shrinkage:** 10% nominal. **Color:** Clear.

Alpha No.	Size, AWG	Expanded Inside Dia.	Recovered Inside Dia.	Nom. Wall Thickness	Net/100′ Pkg.
FIT-400-24	24	.032″	.027″	.008″	$ 54.11
FIT-400-22	22	.037″	.032″	.008″	56.61
FIT-400-20	20	.046″	.039″	.008″	59.04
FIT-400-18	18	.061″	.049″	.008″	61.54
FIT-400-16	16	.076″	.061″	.009″	68.89
FIT-400-14	14	.093″	.072″	.009″	71.37
FIT-400-12	12	.116″	.089″	.009″	73.82
FIT-400-10	10	.142″	.114″	.010″	79.93
FIT-400-9	9	.159″	.124″	.010″	109.24
FIT-400-8	8	.181″	.143″	.010″	114.40
FIT-400-7	7	.198″	.158″	.011″	135.57
FIT-400-6	6	.227″	.180″	.011″	142.26
FIT-400-5	5	.249″	.198″	.011″	148.84
FIT-400-4	4	.292″	.226″	.011″	157.25
FIT-400-3	3	.312″	.249″	.011″	183.07
FIT-400-2	2	.367″	.280″	.012″	196.07
FIT-400-1	1	.400″	.311″	.012″	209.88
FIT-400-0	0	.442″	.349″	.012″	233.24

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-400-MS1	24″–14″ (6 sizes)	5 per size (30 total)	$ 7.42
FIT-400-MS2	12″–6″ (6 sizes)	5 per size (30 total)	13.07
FIT-400-MS3	5″–0″ (6 sizes)	3 per size (18 total)	13.52

FIT-500 SHRINKABLE TEFLON TUBING

FIT-500 shrinkable tubing forms a tight, flexible protective covering for wires and electronic components; it is recommended for use as a mechanical shield and for friction-proofing. Resists chemical and corrosive agents; is non-burning, non-corrosive. Electrical characteristics remain stable throughout electrical range. **Ultimate Elongation:** 600% max. **Longitudinal Shrinkage:** 10% nominal. **Water Absorption:** 0.01% max. **Color:** Natural.

Alpha No.	Size, Inches			2 Ft. Lengths	
	Min. I.D.*	Recov. I.D.†	Wall Thk.	Std. Pkg.	Pkg. Net
FIT-500-30	.030	.022	.009	100′	$121.90
FIT-500-28	.035	.025	.009	100′	119.73
FIT-500-26	.040	.028	.010	100′	117.54
FIT-500-24	.050	.032	.010	100′	94.03
FIT-500-22	.055	.037	.010	100′	95.56
FIT-500-20	.060	.044	.012	100′	96.84
FIT-500-18	.076	.052	.012	100′	102.83
FIT-500-16	.093	.063	.012	100′	108.13
FIT-500-14	.121	.078	.012	100′	111.66
FIT-500-12	.153	.096	.012	50′	61.54
FIT-500-10	.191	.116	.012	50′	71.08
FIT-500-8	.240	.144	.015	50′	122.83
FIT-500-6	.302	.178	.015	20′	56.85
FIT-500-4	.370	.224	.015	20′	67.68
FIT-500-2	.430	.278	.015	20′	81.14
FIT-500-0	.470	.347	.015	20′	98.02

*Before shrinking. †After shrinking.

PACKAGED ASSORTMENTS IN 6″ LENGTHS

Alpha No.	Size Range	No. Lengths/Box	Net/Box
FIT-500-MS1	30″–20″ (6 sizes)	5 per size (30 total)	$ 9.94
FIT-500-MS2	18″–10″ (5 sizes)	5 per size (25 total)	9.05
FIT-500-MS3	8″–0″ (5 sizes)	3 per size (15 total)	16.29

FIT-600 IRRADIATED NEOPRENE TUBING

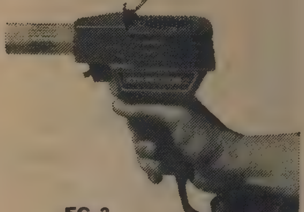
A highly flexible, irradiated neoprene tubing with outstanding abrasion resistance properties. Widely used as a cable jacketing and harness material where maximum abrasion protection is required. **Ultimate Elongation:** 225%. **Longitudinal Shrinkage:** 6% nominal. **Color:** Black.

Alpha No.	Size	Min. I.D. Before Shrinkage	Recov. I.D. After Shrinkage	Nom. Wall Thk.	Net per Pkg.	
					25′	100′
FIT-600-¼	¼″	.250″	.143″	.035″	$ 60.35	$236.84
FIT-600-⅜	⅜″	.375″	.214″	.040″	72.22	283.20
FIT-600-½	½″	.500″	.286″	.048″	80.29	314.93
FIT-600-⅝	⅝″	.625″	.375″	.052″	90.25	353.98
FIT-600-¾	¾″	.750″	.428″	.057″	100.38	393.78
FIT-600-⅞	⅞″	.875″	.500″	.065″	112.23	440.16
FIT-600-1	1″	1.00″	.570″	.070″	122.45	480.23
FIT-600-1¼	1¼″	1.25″	.714″	.087″	169.72	665.90
FIT-600-1½	1½″	1.50″	.857″	.095″	198.34	777.77
FIT-600-1¾	1¾″	1.75″	1.00″	.107″	242.47	950.88
FIT-600-2	2″	2.00″	1.14″	.110″	282.04	1106.08
FIT-600-3	3″	3.00″	1.71″	.125″	430.52	852.50*

*Pkg. of 50 Ft.

HEAT GUNS

HG-1


FG-2

The recommended tool for shrinking FIT tubing. A flameless, quiet-operating hot air torch that may be used for portable operations or secured permanently to a bench by means of a mounting bracket. Heavy-duty construction. Adjustable turbo fan air intake to control temperature and a double jacketed housing of diecast aluminum. With neoprene-jacketed 3-wire cord and plug and adapter for 2-prong receptacle. Motor for 115 VAC/DC. Length, 11″ overall.

Alpha No. HG-1 Heat Gun—Temp. up to 260° C. Net .**$70.68**

Alpha No. HG-2 Heat Gun—Temp., 750°–400° C. Net. **$84.68**

Alpha No. FG-2 Heat Gun—Portable unit for temperatures from 260° C to 427° C depending upon the nozzle used. Complete with three nozzles and two tubing reflectors. Net Each. **$79.43**

FIT-KITS—IDEAL R & D, OR PROTOTYPE SAMPLERS

FIT-KIT-1

FIT-KIT-4

FIT-KIT-1—Contains more than 70 6″ lengths of 7 widely used types of FIT Tubing in a variety of colors. Compartmented clear plastic box allows easy storage and quick identification. Includes lengths of FIT-105, FIT-221, FIT-295, FIT-300, FIT-350, FIT CAPS AND FIT MARKERS. Size, 11″ w. x 6½″ d. x 2″ h. Net Each. **$34.59**

FIT-KIT-2—Contains all items in FIT-KIT-1, plus 6″ lengths of FIT-321, FIT-400, FIT-500, FIT-600, FIT-700, and 1″ cut pieces of FIT-750. Kit is complete engineering, prototype, or laboratory inventory of all Alpha FIT-Tubing. Consists of two 11″ w. x 6½″ d. x 2″ h. compartmented clear plastic boxes. Net Each. **$62.30**

FIT-KIT-4—Contains over 200 6″ lengths of 12 types of FIT tubing, 400 FIT Markers, 39 Fit Caps, and FG-2 heat gun with accessories all in high impact plastic carrying case. Net Each. **$291.48**

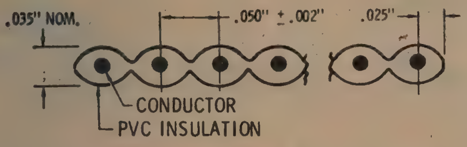
FIT-KIT-5—Same as FIT-KIT-4, except without FG-2 heat gun. Net Each. **$204.21**

alpha Flat Cables (Laminated & Ribbon)

FLAT CABLE

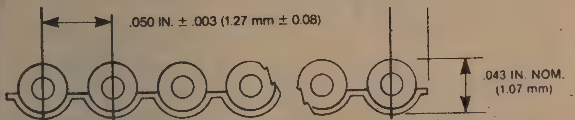
Gray or color-coded flat parallel cable available. Wires can be easily separated or terminated with Alpha or any major brand of IDC on .050″ centers. 28 AWG (7/36) stranded, tinned copper conductors. **Temperature Rating:** 80° C (105° C for gray cable). **Voltage Rating:** 300 V. **Capacitance:** 14 pf/ft. nominal. **Propagation Delay:** 1.4 ns/ft. UL listed. Passes FR-1 vertical flame test. Resists acids, alkalis, oils, moisture, solvents, ozone and fungus.

IDC CABLES
FCC GRAY LAMINATED FLAT CABLE



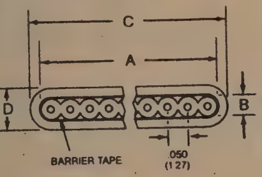
The original general-purpose interconnecting flat cable for mass termination. Stranded conductors. Laminate is formed precisely around conductors. Red stripe on leading edge for conductor identification. **Impedance:** 105 ohms nominal. 30 AWG solid, tinned copper conductors available; information on request. Standard put-up, 100 ft.

FCC COLOR-CODED FLAT CABLE



Laminated ribbon cable with color-coded PVC insulated, stranded conductors, laminated between two layers of clear PVC film. PVC insulation wall thickness, .010″ nominal. **Impedance:** 103 ohms nominal. Standard put-up, 100 ft.

RIBBON CABLES (NOT IDC)
BONDED RIBBON CABLE



Stranded, tinned copper conductors; available in sizes from 22 to 30 AWG. PVC insulated conductors are bonded into a flat ribbon cable. **PVC wall thickness:** Sizes 22 AWG (19/34), 24 AWG (7/32), 24 AWG (19/36), 26 AWG (7/34). 28 AWG (7/36) and 30 AWG (7/38), .010″; size 22 AWG (7/30), .016″. Available with 10, 15, 20 or 30 conductors. **Temperature Rating:** −55° C to +105° C. **Voltage Rating:** .010″ PVC (Mil-W-16878 Type B), 600 V; .016″ PVC (Mil-W-16878 Type C), 1000 V. Passes FR-1 vertical flame test.

FLAT CABLE COLOR CODE

Brown, red, orange, yellow, green, blue, violet, gray, white, black; color code repeats after tenth conductor or twisted pair. Common leads of twisted pairs are tan.

FLAT CABLE

Alpha No.	No. Conds.	Nom. Width	Weight per 100 ft. (lbs.)	Net per 100 ft. 100-499	500-999	1000-up
FCC GRAY LAMINATED FLAT CABLE						
3580/9	9	.45″	1.0	$ 18.17	$ 15.40	$ 12.62
3580/10	10	.45″	1.2	20.21	17.20	14.05
3580/14	14	.65″	1.7	28.35	23.94	19.67
3580/15	15	.75″	1.9	30.29	25.67	21.04
3580/16	16	.75″	2.0	32.31	27.37	22.47
3580/20	20	.95″	2.4	40.43	34.13	28.04
3580/24	24	1.15″	2.9	48.43	41.09	33.75
3580/25	25	1.25″	3.1	50.43	42.79	35.14
3580/26	26	1.25″	3.2	52.45	44.52	36.54
3580/34	34	1.65″	4.2	68.54	58.20	47.80
3580/37	37	1.85″	4.6	74.57	63.92	52.04
3580/40	40	1.95″	4.9	80.69	68.45	56.26
3580/50	50	2.45″	6.1	100.91	85.55	70.25
3580/60	60	2.95″	7.3	123.11	104.37	85.70
3580/64	64	3.15″	7.7	131.52	111.46	91.36
FCC COLOR-CODED FLAT CABLE						
3581/9	9	.45″	0.9	$ 24.41	$ 20.49	$ 17.29
3581/10	10	.45″	1.1	27.12	22.77	19.21
3581/14	14	.65″	1.5	37.95	31.88	26.90
3581/15	15	.75″	1.6	40.66	34.16	28.83
3581/16	16	.75″	1.7	43.37	36.43	30.75
3581/20	20	.95″	2.2	54.22	45.55	38.43
3581/24	24	1.15″	2.6	65.06	54.65	46.11
3581/25	25	1.25″	2.8	67.77	56.93	48.03
3581/26	26	1.25″	2.9	70.47	59.20	49.95
3581/34	34	1.65″	3.7	92.16	77.41	65.32
3581/37	37	1.85″	4.1	100.30	84.25	71.10
3581/40	40	1.95″	4.4	108.43	91.08	76.88
3581/50	50	2.45″	5.5	135.52	113.84	96.05
3581/60	60	2.95″	6.6	162.63	136.61	115.27
3581/64	64	3.15″	7.0	173.46	145.71	122.95

BONDED RIBBON CABLE
TYPE B

Alpha No.	No. Conds.	Gauge (AWG)	Strands	Net per 100 ft. 100	200-400	500-900	1000-Up
3530	10	22	19/34	$44.37	$42.53	$40.76	$38.94
3531	15	22	19/34	66.57	63.88	61.14	58.43
3532	20	22	19/34	88.64	85.00	81.40	77.81
3533	30	22	19/34	132.90	127.50	122.04	116.65
3530/7	10	22	7/30	35.84	34.39	32.90	31.45
3531/7	15	22	7/30	53.82	51.60	49.42	47.23
3532/7	20	22	7/30	71.66	68.77	65.83	62.91
3533/7	30	22	7/30	107.38	103.01	98.63	94.24
3540	10	24	19/36	37.88	36.31	34.79	33.22
3541	15	24	19/36	56.86	54.56	52.24	49.90
3542	20	24	19/36	75.77	72.66	69.57	66.50
3543	30	24	19/36	116.18	111.46	106.70	101.97
3540/7	10	24	7/32	27.54	26.42	25.28	24.15
3541/7	15	24	7/32	41.33	39.65	37.94	36.26
3542/7	20	24	7/32	55.09	52.86	50.58	48.35
3543/7	30	24	7/32	82.65	79.27	75.88	72.51
3550	10	26	7/34	23.20	22.24	21.33	20.36
3550/14	14	26	7/34	32.50	31.15	29.83	28.51
3551	15	26	7/34	34.82	33.40	31.98	30.54
3551/16	16	26	7/34	39.60	37.94	36.36	34.74
3552	20	26	7/34	46.41	44.54	42.64	40.75
3553	30	26	7/34	69.62	66.80	63.96	61.12
3560	10	28	7/36	28.64	27.45	26.30	25.15
3561	15	28	7/36	42.94	41.15	39.43	37.68
3562	20	28	7/36	57.28	54.91	52.59	50.23
3563	30	28	7/36	85.94	82.40	78.92	75.38
3570	10	30	7/38	29.43	28.21	27.00	25.80
3571	15	30	7/38	44.14	42.32	40.51	38.73
3572	20	30	7/38	58.85	55.45	54.07	51.62
3573	30	30	7/38	88.28	84.62	81.06	77.42

TYPE C

Nom. wall thickness, .016″ Temp. rating, −55° C to +105° C. Voltage rating, 1000 volts.

3505	5	22	7/30	$21.01	$20.12	$19.27	$18.42
3510	10	22	7/30	41.85	40.13	38.44	36.72
3515	15	22	7/30	62.76	60.19	57.67	55.08
3520	20	22	7/30	83.73	80.28	76.89	73.45

JACKETED FLAT CABLE

Standard gray flat cable covered with a uniform, close-fitting jacket of gray PVC, compounded for flexibility and abrasion resistance. The shielded version uses an aluminum/mylar foil with two drain wires.

Alpha No.	No. of Conds.	Dimensions, Inches A	B	C	D	Wall Thk., Ins.	Net 100′
UNSHIELDED							
3589/9	9	.450	.045	.520	.115	.035	$154.69
3589/10	10	.500	.045	.570	.115	.035	171.88
3589/14	14	.700	.045	.770	.115	.035	198.50
3589/15	15	.750	.045	.820	.115	.035	205.03
3589/16	16	.800	.045	.870	.115	.035	211.56
3589/20	20	1.000	.045	1.070	.115	.035	239.68
3589/24	24	1.200	.045	1.270	.115	.035	268.97
3589/25	25	1.250	.045	1.320	.115	.035	276.09
3589/26	26	1.300	.045	1.370	.115	.035	283.19
3589/34	34	1.700	.045	1.800	.145	.050	265.06
3589/37	37	1.850	.045	1.950	.145	.050	389.09
3589/40	40	2.000	.045	2.100	.145	.050	413.13
3589/50	50	2.500	.045	2.600	.145	.050	495.66

Alpha No.	No. of Conds.	Dimensions, Inches A	B	C	D	Wall Thk., Ins.	Net 100′
SHIELDED							
3590/9	9	.450	.045	.520	.115	.035	$159.47
3590/10	10	.500	.045	.570	.115	.035	177.19
3590/14	14	.700	.045	.770	.115	.035	204.63
3590/15	15	.750	.045	.820	.115	.035	211.38
3590/16	16	.800	.045	.870	.115	.035	218.09
3590/20	20	1.000	.045	1.070	.115	.035	247.09
3590/24	24	1.200	.045	1.270	.115	.035	277.28
3590/25	25	1.250	.045	1.320	.115	.035	284.63
3590/26	26	1.300	.045	1.370	.115	.035	291.94
3590/34	34	1.700	.045	1.800	.145	.050	376.34
3590/37	37	1.850	.045	1.950	.145	.050	400.95
3590/40	40	2.000	.045	2.100	.145	.050	425.91
3590/50	50	2.500	.045	2.600	.145	.050	511.00

alpha Flat Cable Connectors

The Alpha Flat Cable Connector System has been designed to provide superior reliability, assembly ease, and compatibility with MIL-C-83503. Manufactured to strict tolerances, the Alpha connectors ensure precision termination and the ability to create reliable and predictable assemblies.

OFF-SET TINES

Patented off-set tines place forces on the conductor in opposite directions on two different planes, keeping the conductor under constant tension, ensuring a gas-tight connection.

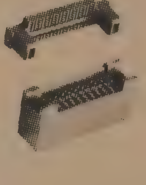
DUAL CANTILEVERED CONTACTS

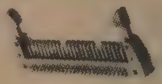
The female socket connectors feature dual cantilevered contacts insuring good electrical contact when inserted into a header. The design provides two surfaces for wiping action which will remove any oxides or dirt that may have built up on the contacts.

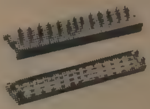
FCC-210

FCC-183

FCC-130


FCC-170


FCC201


FCC-140

DIP CONNECTORS

Dual-In-Line-Package connectors are compatible with standard IC component spacing and will mate with standard 14- and 16-pin IC sockets. A low cost hand tool or bench press can be used for assembly. DIP connectors will accept 28-30 AWG stranded or solid conductors. Contacts are phosphor bronze with nickel and gold plating. QPL qualified versions are available.

Alpha Number	No. of Contacts	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
FCC-130-14	14	$1.83	$1.38	$1.23	$1.14	$1.10
FCC-130-16	16	2.07	1.55	1.40	1.30	1.24
FCC-130-24	24	3.32	2.50	2.24	2.08	1.99
FCC-130-40	40	5.41	4.06	3.65	3.39	3.25

FEMALE SOCKET CONNECTORS

The female socket connector is designed to make a non-permanent connection. It plugs into a mating header connector which is permanently mounted to a printed circuit board. The female socket connector and mating header are used where there is a need to be able to disconnect and then reconnect the cable assembly. Will accept 28-30 AWG stranded or solid conductors. Contacts are phosphor bronze with nickel and gold plating. Connectors can be supplied with an integral strain relief or with a flat cover for Daisy Chain applications. QPL qualified versions of the FCC-210 Series are available.

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
WITH STRAIN RELIEF						
FCC-210-10	10	$2.49	$1.86	$1.66	$1.52	$1.46
FCC-210-20	20	3.54	2.64	2.37	2.19	2.09
FCC-210-26	26	4.47	3.34	2.99	2.76	2.65
FCC-210-34	34	5.79	4.33	3.87	3.62	3.44
FCC-210-40	40	6.71	5.03	4.52	4.17	4.00
FCC-210-50	50	8.32	6.23	5.59	5.18	4.97
WITHOUT STRAIN RELIEF						
FCC-220-10	10	$2.16	$1.62	$1.45	$1.35	$1.30
FCC-220-20	20	3.21	2.41	2.17	2.01	1.93
FCC-220-26	26	4.14	3.10	2.79	2.59	2.49
FCC-220-34	34	5.51	4.06	3.65	3.39	3.25
FCC-220-40	40	6.34	4.75	4.28	3.96	3.81
FCC-220-50	50	7.94	5.96	5.36	4.96	4.76

ASSEMBLY TOOLS

Alpha has designed bench and hand tools to assemble the flat cable and the connectors. They are designed to be easy to use, to reduce set-up time and to improve through-put and reduce costs.

Alpha No. FCT-12 Bench Press—Universal bench press for Alpha and many other brands of IDC connectors. Net Ea... **$655.00**

Alpha No. FCT-30 Hand Tool—Fits DIP connectors. Net Each **$24.95**

Alpha No. FCT-100 Cable Assembly Tester—Automatic tester for IDC cable and connector assemblies. Net Each.... **$1111.00**

FLAT CABLE AND CONNECTOR KITS

Alpha FCT-80 Designer Kit—Contains over 300 connectors and accessories, 100 feet of 100-conductor cable and a bench press for assembly. Case is polypropylene and has provisions for locking. Net Each.. **$1446.50**

Alpha FCT-81 DIP Kit—Contains 14, 16, and 24 pin DIPs; strain relief clips; cables; and hand tools in a clear plastic box. Net Each.. **$137.50**

CARD EDGE CONNECTORS

Card edge connectors are mateable with standard .062″ PC boards and will mate with boards ranging in thickness from .032″ to .075″. The connectors will accept #28 or #30 AWG solid or stranded conductors on .050″ centers providing a direct, reliable access to PCB pads on .100″ centers. Connectors are available with and without mounting flanges.

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
WITHOUT MOUNTING FLANGES						
FCC-170-10	10	$2.98	$2.24	$2.01	$1.86	$1.79
FCC-170-20	20	4.95	3.72	3.34	3.09	2.97
FCC-170-26	26	5.59	4.19	3.77	3.50	3.36
FCC-170-34	34	6.91	5.18	4.66	4.32	4.15
FCC-170-40	40	8.03	6.03	5.42	5.02	4.82
FCC-170-50	50	8.78	6.59	5.93	5.49	5.27
WITH MOUNTING FLANGE						
FCC-171-10	10	$2.98	$2.24	$2.01	$1.86	$1.79
FCC-171-20	20	4.95	3.72	3.34	3.09	2.97
FCC-171-26	26	5.59	4.19	3.77	3.50	3.36
FCC-171-34	34	6.91	5.18	4.66	4.32	4.15
FCC-171-40	40	8.03	6.03	5.42	5.02	4.82
FCC-171-50	50	8.78	6.59	5.93	5.49	5.27

D-SUBMINIATURE CONNECTORS

D-Subminiature connectors compatible with all conventional D-Subminiature connectors. Available as male or female connectors in 9, 15, 25, or 37 contact versions.

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
MALE PLUG						
FCC-182-9	9	$ 4.70	$3.53	$3.17	$2.94	$2.82
FCC-182-15	15	6.10	4.58	4.12	3.81	3.66
FCC-182-25	25	8.29	6.26	5.64	5.25	5.04
FCC-182-37	37	12.03	9.03	8.12	7.52	7.22
FEMALE SOCKET						
FCC-183-9	9	$ 5.60	$ 4.20	$3.78	$3.50	$3.36
FCC-183-15	15	7.38	5.54	4.98	4.61	4.43
FCC-183-25	25	9.48	7.15	6.45	5.98	5.75
FCC-183-37	37	13.86	10.40	9.36	8.67	8.32

PRINTED CIRCUIT BOARD CONNECTORS

The printed circuit board connector is designed to make a permanent connection wherever the cable is to be directly terminated to the PC board. After the cable is crimped onto the connector, the connector is soldered to the board. Connectors will accept 28-30 AWG conductors. QPL qualified versions are available.

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
FCC-140-10	10	$1.45	$1.09	$0.98	$0.91	$0.87
FCC-140-20	20	1.69	1.28	1.14	1.06	1.01
FCC-140-26	26	2.18	1.64	1.47	1.36	1.31
FCC-140-34	34	2.64	1.98	1.78	1.65	1.58
FCC-140-40	40	3.06	2.30	2.07	1.91	1.84
FCC-140-50	50	3.76	2.83	2.54	2.35	2.26

CONTINUED ON FOLLOWING PAGE

alpha Flat Cable Connectors (Cont.)

HEADER CONNECTORS

Mate with female socket connectors for use as disconnect. Headers mount on printed circuit board. Contacts are phosphor bronze with nickel and gold plating. All header styles also available with locking tabs. Those units with strain relief latches have QPL qualification.

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
RIGHT ANGLE HEADERS WITH .090″ SOLDER TERMINALS						
FCC-251-10	10	$1.76	$1.32	$1.19	$1.10	$1.06
FCC-251-20	20	2.29	1.72	1.54	1.43	1.38
FCC-251-26	26	2.84	2.13	1.91	1.77	1.71
FCC-251-34	34	3.71	2.79	2.51	2.32	2.23
FCC-251-40	40	4.25	3.19	2.87	2.65	2.55
FCC-251-50	50	5.15	3.86	3.48	3.22	3.09
RIGHT ANGLE HEADERS WITH .155″ SOLDER TERMINALS						
FCC-255-10	10	$1.87	$1.41	$1.27	$1.17	$1.12
FCC-255-20	20	2.29	1.72	1.54	1.43	1.38
FCC-255-26	26	3.08	2.31	2.08	1.93	1.85
FCC-255-34	34	3.96	2.97	2.67	2.48	2.38
FCC-255-40	40	4.53	3.40	3.06	2.84	2.72
FCC-255-50	50	5.50	4.13	3.72	3.44	3.30
RIGHT ANGLE HEADERS WITH WIRE WRAP TERMINALS						
FCC-252-10	10	$2.46	$1.85	$1.66	$1.54	$1.47
FCC-252-20	20	4.55	3.42	3.07	2.85	2.73
FCC-252-26	26	5.57	4.18	3.76	3.48	3.34
FCC-252-34	34	6.60	4.95	4.46	4.13	3.96
FCC-252-40	40	7.50	5.63	5.06	4.69	4.50
FCC-252-50	50	8.80	6.60	5.94	5.50	5.28
RIGHT ANGLE HEADERS WITH STRAIN RELIEF LATCHES AND .090″ SOLDER TERMINALS						
FCC-201-10	10	$2.16	$1.62	$1.45	$1.35	$1.30
FCC-201-20	20	2.73	2.05	1.84	1.71	1.64
FCC-201-26	26	3.28	2.46	2.21	2.05	1.97
FCC-201-34	34	4.16	3.12	2.81	2.60	2.50
FCC-201-40	40	4.71	3.53	3.18	2.95	2.83
FCC-201-50	50	5.61	4.21	3.78	3.51	3.37
RIGHT ANGLE HEADERS WITH STRAIN RELIEF LATCHES AND .155″ SOLDER TERMINALS						
FCC-205-10	10	$2.29	$1.72	$1.54	$1.43	$1.38
FCC-205-20	20	2.93	2.20	1.98	1.83	1.76
FCC-205-26	26	3.52	2.64	2.38	2.20	2.11
FCC-205-34	34	4.38	3.29	2.96	2.74	2.63
FCC-205-40	40	4.97	3.73	3.36	3.11	2.98
FCC-205-50	50	6.09	4.58	4.11	3.81	3.65
RIGHT ANGLE HEADERS WITH STRAIN RELIEF LATCHES AND WIRE WRAP TERMINALS						
FCC-202-10	10	$2.86	$2.15	$1.94	$1.79	$1.72
FCC-202-20	20	4.99	3.75	3.37	3.12	2.99
FCC-202-26	26	6.01	4.51	4.06	3.75	3.61
FCC-202-34	34	7.02	5.27	4.74	4.39	4.21
FCC-202-40	40	7.96	5.97	5.38	4.98	4.77
FCC-202-50	50	9.26	6.95	6.25	5.79	5.56
RIGHT ANGLE HEADERS WITH LOW PROFILE LATCHES AND .090″ SOLDER TERMINALS						
FCC-207-10	10	$2.16	$1.62	$1.45	$1.35	$1.30
FCC-207-20	20	2.73	2.05	1.84	1.71	1.64
FCC-207-26	26	3.28	2.46	2.21	2.05	1.97
FCC-207-34	34	4.16	3.12	2.81	2.60	2.50
FCC-207-40	40	4.71	3.53	3.18	2.95	2.83
FCC-207-50	50	5.61	4.21	3.78	3.51	3.37
RIGHT ANGLE HEADERS WITH LOW PROFILE LATCHES AND .155″ SOLDER TERMINALS						
FCC-208-10	10	$2.29	$1.72	$1.54	$1.43	$1.38
FCC-208-20	20	2.93	2.20	1.98	1.83	1.76
FCC-208-26	26	3.52	2.64	2.38	2.20	2.11
FCC-208-34	34	4.38	3.29	2.96	2.74	2.63
FCC-208-40	40	4.97	3.73	3.36	3.11	2.98
FCC-208-50	50	6.09	4.58	4.11	3.81	3.65
RIGHT ANGLE HEADERS WITH LOW PROFILE LATCHES AND WIRE WRAP TERMINALS						
FCC-209-10	10	$2.86	$2.15	$1.94	$1.79	$1.72
FCC-209-20	20	4.99	3.75	3.37	3.12	2.99
FCC-209-26	26	6.01	4.51	4.06	3.75	3.61
FCC-209-34	34	7.02	5.27	4.73	4.39	4.21
FCC-209-40	40	7.96	5.97	5.38	4.98	4.77
FCC-209-50	50	9.26	6.95	6.25	5.79	5.56

Alpha Number	No. of Pins	Net Each, Lots of				
		1-99	100-499	500-999	1000-2999	3000-4999
STRAIGHT HEADERS WITH .090″ SOLDER TERMINALS						
FCC-261-10	10	$1.80	$1.35	$1.22	$1.13	$1.08
FCC-261-20	20	2.33	1.75	1.57	1.46	1.40
FCC-261-26	26	2.88	2.17	1.95	1.80	1.73
FCC-261-34	34	3.76	2.83	2.54	2.35	2.26
FCC-261-40	40	4.33	3.26	2.93	2.71	2.60
FCC-261-50	50	5.28	3.96	3.56	3.30	3.17
STRAIGHT HEADERS WITH .155″ SOLDER TERMINALS						
FCC-265-10	10	$1.91	$1.44	$1.29	$1.20	$1.14
FCC-265-20	20	2.57	1.94	1.74	1.61	1.54
FCC-265-26	26	3.21	2.41	2.17	2.01	1.93
FCC-265-34	34	4.18	3.14	2.83	2.62	2.51
FCC-265-40	40	4.80	3.60	3.23	3.00	2.80
FCC-265-50	50	6.36	4.77	4.29	3.97	3.82
STRAIGHT HEADERS WITH WIRE WRAP TERMINALS						
FCC-262-10	10	$2.46	$1.85	$1.66	$1.54	$1.47
FCC-262-20	20	4.55	3.42	3.07	2.85	2.73
FCC-262-26	26	5.57	4.18	3.76	3.48	3.34
FCC-262-34	34	6.60	4.95	4.46	4.13	3.96
FCC-262-40	40	7.50	5.63	5.06	4.69	4.50
FCC-262-50	50	8.80	6.60	5.94	5.50	5.28
STRAIGHT HEADERS WITH STRAIN RELIEF LATCHES AND .090″ SOLDER TERMINALS						
FCC-291-10	10	$2.20	$1.65	$1.49	$1.38	$1.32
FCC-291-20	20	2.77	2.08	1.87	1.74	1.66
FCC-291-26	26	3.32	2.50	2.24	2.08	1.99
FCC-291-34	34	4.20	3.16	2.84	2.63	2.52
FCC-291-40	40	4.80	3.60	3.23	3.00	2.88
FCC-291-50	50	5.74	4.31	3.87	3.59	3.44
STRAIGHT HEADERS WITH STRAIN RELIEF LATCHES AND .155″ SOLDER TERMINALS						
FCC-295-10	10	$2.33	$1.75	$1.57	$1.46	$1.40
FCC-295-20	20	3.01	2.27	2.04	1.88	1.80
FCC-295-26	26	3.65	2.74	2.46	2.29	2.19
FCC-295-34	34	4.60	3.45	3.10	2.87	2.76
FCC-295-40	40	5.24	3.93	3.53	3.28	3.15
FCC-295-50	50	6.36	4.77	4.29	3.97	3.82
STRAIGHT HEADERS WITH STRAIN RELIEF LATCHES AND WIRE WRAP TERMINALS						
FCC-292-10	10	$2.86	$2.15	$1.94	$1.79	$1.72
FCC 292-20	20	4.99	3.75	3.37	3.12	2.99
FCC-292-26	26	6.01	4.51	4.06	3.75	3.61
FCC-292-34	34	7.02	5.27	4.74	4.39	4.21
FCC-292-40	40	7.96	5.97	5.38	4.98	4.77
FCC-292-50	50	9.26	6.95	6.25	5.79	5.56
STRAIGHT HEADERS WITH LOW PROFILE LATCHES AND .090″ SOLDER TERMINALS						
FCC-297-10	10	$2.20	$1.65	$1.49	$1.38	$1.32
FCC-297-20	20	2.77	2.08	1.87	1.74	1.66
FCC-297-26	26	3.32	2.50	2.24	2.08	1.99
FCC-297-34	34	4.20	3.16	2.84	2.63	2.52
FCC-297-40	40	4.80	3.60	3.23	3.00	2.88
FCC-297-50	50	5.74	4.31	3.87	3.59	3.44
STRAIGHT HEADERS WITH LOW PROFILE LATCHES AND .155″ SOLDER TERMINALS						
FCC-298-10	10	$2.33	$1.75	$1.57	$1.46	$1.40
FCC-298-20	20	3.01	2.27	2.04	1.88	1.80
FCC-298-26	26	3.65	2.74	2.46	2.29	2.19
FCC-298-34	34	4.60	3.45	3.10	2.87	2.76
FCC-298-40	40	5.24	3.93	3.53	3.28	3.15
FCC-298-50	50	6.36	4.77	4.29	3.97	3.82
STRAIGHT HEADERS WITH LOW PROFILE LATCHES AND WIRE WRAP TERMINALS						
FCC-299-10	10	$2.86	$2.15	$1.94	$1.79	$1.72
FCC-299-20	20	4.99	3.75	3.37	3.12	2.99
FCC-299-26	26	6.01	4.51	4.06	3.75	3.61
FCC-299-34	34	7.02	5.27	4.74	4.39	4.21
FCC-299-40	40	7.96	5.97	5.38	4.98	4.77
FCC-299-50	50	9.26	6.95	6.25	5.79	5.56

OUR STOCKS ARE FULLY UP TO DATE WITH ALL THE LATEST PRODUCTS.

ASK ABOUT NEW OR UNLISTED ITEMS.

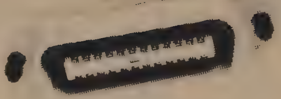
alpha Point of Sale and Data Cables

IEEE 488 (GPIB) INTERFACE BUS CABLES

Designed for compatibility with the IEEE 488 interface for the interconnection of digital testing and recording instruments. The cable consists of 6 #26 AWG twisted pairs, 10 #26 AWG single conductors, and 1 #24 AWG single conductor. The cable core is covered by a braided, tinned copper shield and a gray PVC jacket. Type No. 5910 is double shielded for added RFI protection.

Alpha No.	Nom. O.D.	Net per Spool		
		100′	500′	1000′
5900	.350″	$100.00	$345.48	$690.98
5910	.442″	128.97	518.22	1036.47

MOLDED ASSEMBLIES



Alpha provides pretested molded assemblies utilizing the 5900 or 5910 cable and the IEEE standard 488 24-pin connector.

Alpha No.	Length		Net Each, Lots of	
	Meters	Feet	1-49	50 Up
5900/1	1	3.3	$ 64.62	$ 42.83
5900/2	2	6.6	69.45	46.35
5900/3	3	9.9	73.95	47.55
5900/4	4	13.1	77.25	54.26
5900/8	8	26.2	92.63	69.53
5900/12	12	39.4	123.53	101.03
5900/16	16	52.5	147.48	108.30
5910/1	1	3.3	96.93	64.25
5910/2	2	6.6	104.18	69.53
5910/3	3	9.9	110.93	71.33
5910/4	4	13.1	115.83	81.39
5910/8	8	26.2	138.95	104.30
5910/12	12	39.4	185.30	151.55
5910/16	16	52.5	221.22	162.45

MULTIPAIR FOIL SHIELDED DATA CABLE

Conductors are #24 AWG (7/32), annealed, tinned copper. The shield is aluminum/polyester foil with a stranded, tinned copper drain wire. The jacket is gray PVC with foot markers.

Alpha No.	No. of Pairs	Nom. O.D.	Net per Spool		
			100′	500′	1000′
UL STYLE 2464					
5471	1	.156″	$ 11.29	$ 46.33	$ 95.47
5472	2	.222″	20.50	84.23	168.45
5473	3	.232″	26.73	114.21	221.71
5474	4	.252″	34.45	146.50	284.38
5475	5	.295″	44.29	183.14	355.51
5476	6	.295″	51.10	204.78	421.97
5477	7	.300″	58.37	241.82	469.41
5478	8	.330″	64.15	274.25	548.51
5479	9	.340″	71.58	306.15	594.30
5480	10	.380″	81.40	337.44	663.75
5480/15	15	.425″	118.96	495.72	962.28
5480/19	19	.450″	150.48	627.30	1241.25
5480/25	25	.530″	188.08	809.37	1569.65
5480/50	50	.715″	371.40	1548.86	3135.00
UL STYLE 2344					
5590	5	.350″	$ 152.83	$ 697.17	$1174.81
5591	7	.360″	173.88	793.75	1335.73
5592	12	.450″	247.09	1126.95	1891.05
5593	15	.490″	313.87	1429.50	2395.45
5594	19	.510″	355.26	1618.35	2710.15
5595	27	.580″	479.23	2181.97	3649.47
5596	37	.645″	639.93	2912.19	4866.49
5597	48	.717″	796.86	3625.74	6055.71
5598	60	.765″	1015.54	4619.71	7712.40

ALPHA-BYTE™ DATA CABLE

Cellular polypropylene insulated cable is applicable wherever precision audio, pulse, or RF signals must be transmitted with low distortion, high speed and high data rates. Usable for external interconnection of computer or electronic point-of-sale equipment in areas where high levels of noise interference are expected. Conductors are paired and shielded with aluminum/Mylar/aluminum tape in Type 6072 and with aluminum foil in all other types. A stranded tinned copper drain wire is provided. Outer jacket is gray PVC. **Characteristic Impedance:** Type 6072, 150 ohms; other, 100 ohms. **Capacitance:** Type 6072, between conductors of a pair—8.7 pF/ft; from cond. to shield and all other conductors—15.9 pF/ft; Other Types, between conductors of a pair—12.5 pF/ft; from cond. to shield and all other conductors—22 pF/ft. **Voltage Rating:** 300 V, suggested. UL Listed. Type 6072 is UL Style 2668; Type 6079/27 is UL Style 2490; all others are UL Style 2493.

Alpha No.	No. Pairs	Strand	Nominal		Net per Spool		
			Jacket	O.D.	100′	500′	1000′
6072†	2	Solid	.035″	.420″	$ 48.55	$ 231.18	$ 462.37
6073	3	7/32	.048″	.350″	38.17	172.81	345.63
6076	6	7/32	.048″	.460″	77.15	349.94	699.88
6079	9	7/32	.065″	.570″	113.16	515.30	1030.59
6079/11	11	7/32	.065″	.610″	138.77	632.66	1265.31
6079/12	12	7/32	.065″	.630″	144.71	659.34	1318.68
6079/15	15	7/32	.065″	.700″	184.29	839.97	1679.94
6079/17	17	7/32	.065″	.730″	207.97	947.43	1893.38
6079/19	19	7/32	.065″	.740″	237.38	1081.08	2160.68
6079/27	27	7/32	.087″	.920″	347.46	1582.02	3162.51

†No. 22 AWG; all others No. 24 AWG.

MULTIPAIR CABLE—OVERALL SHIELDED
UL STYLE 2464, 80° C, 300 V

Conductors are #22 tinned copper solid with color coded PVC insulation. Conductors are paired and shielded overall with wrapped, Mylar supported, aluminum foil shield. Outer jacket is gray PVC. **Temperature Range:** −20° C to +80° C. **Voltage Rating:** 300 V. Cable passes UL VW-1.

Alpha No.	No. Pairs	Strand	Nominal		Net per Spool		
			Jacket	O.D.	100′	500′	1000′
5902	2	Solid	.032″	.224″	$ 14.26	$ 61.12	$ 122.25
5905	4	Solid	.032″	.265″	24.28	103.12	206.24
5906	6	Solid	.035″	.321″	29.53	129.79	267.44
5909	9	Solid	.037″	.373″	42.76	192.78	385.56
5909/15	15	Solid	.040″	.437″	74.51	342.57	670.05
5909/19	19	Solid	.040″	.475″	61.28	421.52	843.03
5909/27	27	Solid	.045″	.571″	120.73	573.75	1113.75

MULTIPAIR DATA CABLES

Paired construction cables with color coded, high density, polyethylene or polypropylene insulation. Shields are polyester supported aluminum foil with the aluminum directed inwards. Type 2468 has an additional overall shield. Stranded, tinned copper drain wire. Types 2464 thru 2468 use common axis cabling.

UL STYLE 2106, 60° C, 600 VOLTS

Alpha No.	No. Pairs	AWG	Strand	Nom. O.D.	Net per Spool		
					100′	500′	1000′
2471	1	16	19/29	.304″	$23.69	$112.79	$225.57
2472	1	14	19/27	.340″	36.10	171.89	343.78
2473	1	12	19/25	.400″	55.81	265.76	525.71

COMPOSITE TWO PAIR—ONE PAIR SHIELDED

Alpha No.	No. Pairs	AWG	Strand	Nom. O.D.	Net per Spool		
					100′	500′	1000′
2464	2	22	7/30	.165″	$21.20	$ 71.88	$143.74
2465	2	20	7/28	.230″	30.58	107.59	215.17
2468	2	25	7/33	.165″	17.52	76.04	152.08
2469	2	22	7/30	.205″	21.53	102.54	205.08

105° C, 200 VOLTS

Alpha No.	No. Pairs	AWG	Strand	Nom. O.D.	Net per Spool		
					100′	500′	1000′
2460	1	22	Solid	.118″	$14.20	$41.53	$83.08
2461	1	22	7/30	.135″	14.87	46.92	93.85

105° C, 400 VOLTS

Alpha No.	No. Pairs	AWG	Strand	Nom. O.D.	Net per Spool		
					100′	500′	1000′
2463	4	22	7/30	.235″	$55.56	$206.25	$412.50
2466	2	22	7/30	.165″	17.90	76.58	153.15
2467	4	20	7/28	.345″	67.44	321.15	642.29

UL STYLE 2717, 105° C, 400 VOLTS

Alpha No.	No. Pairs	AWG	Strand	Nom. O.D.	Net per Spool		
					100′	500′	1000′
1243/2	2	22	7/30	.198″	$28.50	$135.71	$271.42

alpha Coaxial & Twinaxial Data Cables

UL STYLE 1354, 1478 93-OHM FLEXIBLE COAXIAL CABLE

Alpha No.	MIL No. RG-	Center Conductor		Di-elec-tric	Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap. pF/ft.	Net per Put-Up		
		Mat.*	Strand		1st	2nd	Mat.*	O.D. Ins.				100′	500′	1000′
9062A	62A/U	CW	Solid	SSP	C	....	PVC	.242	750	93	13.5	$ 15.47	$ 73.66	$ 147.31
9805	62A/U	CW	Solid	SSP	C	....	PVC	.260	750	93	13.5	22.62	107.71	209.09
9162	62A/U	C	Solid	SST	C	....	FEP	.225	750	93	13.5	119.85	599.25	1198.50
9806	....	SC	Solid	FPE	A/M	....	PVC	.115	1500	93	14.0	16.98	54.35	108.70
9500	....	SC	Solid	FPP	A/M	....	LM	.080	1000	100	....	135.01	......	......

UL STYLE 1354 50-OHM FLEXIBLE COAXIAL CABLE

Alpha No.	MIL No. RG-	Center Conductor		Di-elec-tric	Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap. pF/ft.	Net per Put-Up		
		Mat.*	Strand		1st	2nd	Mat.*	O.D. Ins.				100′	500′	1000′
9801	58/U	C	Solid	FPE	A/M	TC	PVC	.216	1600	50	26	$ 18.62	$ 88.66	$172.11
9802†	8/U	C	7/19	FPE	C	C	PE	.480	4500	50	26	67.69	322.32	664.17
9450	....	SC	Solid	FEP	A/M	....	LM	.040	1000	50	....	135.01	......	......

†Triaxial construction.

UL STYLE 1354 75-OHM FLEXIBLE COAXIAL CABLE

Alpha No.	MIL No. RG-	Center Conductor		Di-elec-tric	Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap. pF/ft.	Net per Put-Up		
		Mat.*	Strand		1st	2nd	Mat.*	O.D. Ins.				100′	500′	1000′
9803	59/U	C	7/30	FPE	C	....	PVC	.242	2100	75	17.3	$ 23.72	$ 79.45	$163.71
9159	59B/U	CW	Solid	FEP	C	....	FEP	.215	2100	75	20.5	147.00	735.00	1470.00
9843	6/U	C	Solid	FPE	A/M	....	PVC	.242	2500	75	17.3	.....	.....	97.45
9804	6/U	C	Solid	FPE	A/M	TC	PVC	.270	2500	75	17.3	14.20	64.57	125.33
9807	....	C	Solid	PE	TC	TC	PE	.304	....	75	21.0	52.80	251.41	502.82
9475	....	SC	Solid	FPP	A/M	....	LM	.065	1000	75	....	135.01	.....	......
9845	59B/U	CW	Solid	PE	C	....	NCV	.242	....	75	20.5	44.49	211.88	423.75

LO-TOX® COAXIAL PLENUM CABLES

Temperature Range: −65° C to +260° C. Meets requirements of NEC Article 725-2(b), 760-4(d), 800-3(d).

Alpha No.	MIL No. RG-	Center Conductor		Di-elec-tric	Shields*		Jacket		Oper. Volts rms	Nom. Imped. Ohms	Cap. pF/ft.	Net per Put-Up		
		Mat.*	Strand		Mat.*	....	Mat.*	O.D. Ins.				100′	500′	1000′
9159	59B/U	CW	Solid	FEP	C	....	FEP	.215	....	75	20.5	$147.00	$735.00	$1470.00
9162	62A/U	CW	Solid	SST	C	....	FEP	.225	....	93	13.5	119.85	599.25	1198.50

95 AND 100 OHM TWINAXIAL CABLE

Alpha No.	Conductors*			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	1st	2nd	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9816	BC	BC#	7/26	PE	TC	TC	96	....	NCV	.420	$94.71	$393.98	$764.78
9817	BC	TC	7/28	PE	TC	....	85	....	PVC	.330	40.17	191.27	394.13
9818	BC	TC	7/28	PE	TC	....	95	....	PVC	.330	54.09	209.24	431.15

#Center strand tinned for identification.

1, 2, AND 3 PAIR DATA CABLES

78 OHM CABLES

Alpha No.	Conductors			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	No.	Mat.*	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9814	2	TC	7/28	PE	A/M	TC	100	....	PVC	.243	$30.23	$107.18	$214.35
9815	2	TC	7/28	PE	TC	....	93	....	PVC	.242	26.58	106.40	219.25

100 OHM CABLE

Alpha No.	Conductors			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	No.	Mat.*	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9819	4	TC	#28	PE	A/M	TC	100	TC	PVC	.290	$26.15	$124.52	$249.03

124 OHM CABLE

Alpha No.	Conductors			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	No.	Mat.*	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9820	2	BC	#16	FPE	A/M/A	TC	100	....	PVC	.440	$61.27	$291.77	$583.85
9821	2	TC	7/33	PE	A/M	....	100	TC	PVC	.242	14.55	56.80	113.60
9822	6	TC	7/33	PE	A/M	....	100	TC	PVC	.450	73.90	306.31	612.61

150 OHM CABLE

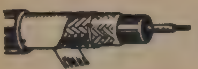
Alpha No.	Conductors			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	No.	Mat.*	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9823	2	TC	19/34	FPE	A/M/A	....	100	TC	PVC	.350	$32.81	$156.22	$312.44

200 OHM CABLE

Alpha No.	Conductors			Di-elec-tric	Shields*		Cover-age %	Drain Wire	Jacket		Net per Put-Up		
	No.	Mat.*	Strand		1st	2nd			Mat.*	O.D.	100′	500′	1000′
9824	2	SCW	#29	FPE	A/M	....	100	TC	PVC	.245	$25.55	$114.29	$228.58

*Materials—Conductors and Shields: C, copper; CW, copper-covered steel; SC, silver-covered copper; SCW, silver-plated, copper-covered steel; TC, tinned copper; BC, bare copper; A/M, Aluminum/Mylar shield tape; A/M/A, aluminum/Mylar/aluminum shield tape. Dielectric: SSP, semisolid polyethylene; SST, semisolid Teflon; FPE, cellular (foam) polyethylene; FPP, cellular (foam) polypropylene; FEP, fluorinated ethylene propylene; PE, solid polyethylene. Jackets: FEP, fluorinated ethylene propylene; LM, laminated Mylar: PE, solid polyethylene; NCV, non-contaminating polyvinylchloride; PVC, polyvinylchloride.

BELDEN Electronic Wire and Cable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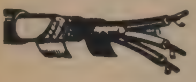
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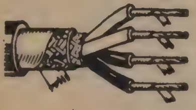
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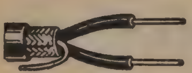
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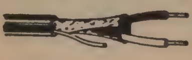
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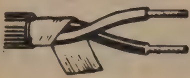
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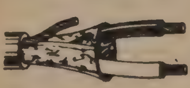
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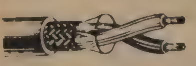
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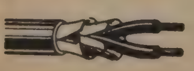
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MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Great abrasion and impact resistance; extra limp so cable lies flat. **No. 8410:** 3 strands copper, 4 strands copper covered steel, cellulose yarn braid, rubber insul., rayon braid, tinned copper braid shield, cellulose yarn wrap, black rubber jacket. **No. 9396:** Same, except PVC insul., tinned copper serve shield, and gray PVC jacket. **No. 9399:** Bare cadmium copper conductor, cotton serve, rubber insul., cabled with fillers, conductive textile wrap shield, tinned copper braid shield, cotton serve, brown rubber jacket. **Nos. 9394 and 9395:** Tinned copper conductor, conductive textile wrap shield, tinned copper serve shield, black neoprene jacket. **No. 9397:** Tinned copper conductor, vinyl insul., conductors cabled with fillers, bare copper spiral shield, matte white or matte gray jacket. **No. 9398:** Same, except color code white, green, brown. **No. 9211:** Tinned copper stranded conductors, polyethylene insul., cabled with conductive tape, Beldfoil® shield with stranded #22 AWG tinned copper drain wire. **Nos. 8406 and 8413:** Tinned cadmium bronze, cotton serve, rubber insul., cabled with fillers, 100% coverage conductive textile wrap shield, tinned copper braid shield, cotton serve, black rubber jacket. **All Others:** Tinned copper, cotton wrap, rubber insul., conductors cabled, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket. Conductor Color Coding: **1**, white; **2**, black; **3**, red; **4**, green; **5**, blue; **6**, brown; **7**, yellow; **8**, orange.

Belden No.	Fig.	No. of Cond.	AWG and (Stranding)	Cap.,* pF/ft.	Nom. O.D.	Net Each, Spool of						
						15′	25′	50′	100′	250′	500′	1000′
8410	A	1	25 (7 x 33)	36	.245″	.....	**$13.75**	**$24.05**	**$43.90**	**100.60**	**165.75**	.....
9394	A	1	20 (26 x 34)	55	.190″	.....	.....	.....	.....	.....	**114.95**	**189.45**
9778	A	1	20 (26 x 34)	45	.235″	.....	.....	.....	**34.40**	.....	**125.00**	**225.00**
9395	F	1	18 (41 x 34)	55	.235″	.....	.....	.....	.....	.....	**125.00***	**234.30***
9396	A	1	25 (7 x 33)	75	.100″	.....	.....	.....	**20.40**	**36.05**	.....	.....
8413‡	B	2	24 (45 x 40)	55	.190″	**$8.95**	**13.95**	**25.70**	**47.70**	**110.05**	**181.30**	.....
8406‡	B	3	24 (45 x 40)	60	.223″	.....	.....	.....	**60.55**	.....	**237.30***	.....
8412	C	2	20 (26 x 34)	55	.263″	.....	**14.75**	**26.75**	**50.45**	**114.40**	**188.55***	**377.10***
8402•	C	2	20 (26 x 34)	55	.263″	.....	.....	.....	**52.45**	**124.45**	**204.75**	**409.50■**
8428#	C	2	18 (41 x 34)	60	.290″	.....	.....	.....	**66.00**	.....	**249.30***	**498.60**
8408†•	C	2	16 (65 x 34)	55	.385″	.....	.....	.....	**90.40**	.....	**357.75**	.....
9399	B	2	24 (25 x 40)	55	.195″	.....	.....	.....	**50.90**	.....	**189.30**	**378.60**
9397	B	2	24 (105 x 44)	40	.185″	.....	.....	.....	**39.05**	.....	**125.00**	**230.25**
9211	E	2	25 (7 x 33)	..	.247″	.....	.....	.....	.....	.....	**88.65**	**146.10**
8423	C	3	20 (26 x 34)	60	.272″	.....	.....	**30.60**	**55.45**	**125.00**	**212.80**	**425.55**
9398	D	3	24 (105 x 44)	70	.186″	.....	.....	.....	**45.60**	.....	**134.50**	**268.95**
8424	C	4	20 (26 x 34)	60	.290″	.....	.....	**33.40**	**62.35**	**125.00***	**240.10***	**480.15**
8407#•	C	4	16 (65 x 34)	55	.416″	.....	.....	.....	**104.40**	**211.30**	.....	.....
8425	C	5	20 (26 x 34)	60	.318″	.....	.....	.....	**86.95**	**174.70**	.....	.....
8426	C	6	20 (26 x 34)	60	.344″	.....	.....	.....	**106.75**	**214.90**	.....	.....
8427	C	7	20 (26 x 34)	60	.355″	.....	.....	.....	**116.40**	**234.00**	.....	.....
8418	C	8	20 (26 x 34)	60	.381″	.....	.....	.....	**125.00**	**262.20**	.....	.....

*Capacitance between one conductor and remaining conductors (if any) connected to shield. †Brown Hypalon® jacket; 8408 has heavy duty brown Hypalon jacket. ‡Miniature cable. #Black neoprene jacket; •Passes the FR-1 vertical flame test. ■Unreel package only.

BROADCAST AUDIO CABLES

Nos. 8437 and 8441: Tinned copper, vinyl insulated, conductors cabled, 8441 stranded, and 8437 solid tinned copper drain wire, tinned copper braid shield, black vinyl jacket. **Nos. 8450, 8451 and 9451:** Tinned copper, polypropylene insulated, conductors cabled, stranded tinned copper ground drain wire, Beldfoil® aluminum-polyester shield, paper wrap, black or gray vinyl jacket (specify); **No. 9451**, gray vinyl jacket only. Jacket and shield on No. 9541 are bonded so both can be removed on automatic stripping equipment. All types are 2-conductor. **Color Coding:** Black, red.

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Cap.* pF/ft.	Work Volts	Net Each, Spool of			
						100′	250′	500′	1000′
8437•▲	D	22 (Solid)	.200″	85	300	.....	.....	**$105.05***	**$173.10***
8441•▲	D	22 (7 x 30)	.210″	86	300	**$27.30**	.....	**115.05***	**189.60***
8450†•	E	22 (Solid)	.118″	76	200	**15.20**	**$26.25**	**52.45***	**104.85***
8451†•	E	22 (7 x 30)	.135″	67	200	**16.40**	**30.50**	**61.00***	**121.95***
9451•	E	22 (7 x 30)	.135″	67	200	.....	.....	**78.55***	**129.45***

*Between one conductor and other conductor connected to shield. †Miniature. •Passes the FR-1 vertical flame test. ▲U.L. Listed.

TWO CONDUCTOR SHIELDED CABLE

Variety of gauges, insulations, shieldings and jackets meet every service requirement. Uniform quality for dependable service. **Fig. F Types:** Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket. **Fig. G Types:** Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, stranded tinned copper drain wire, chrome vinyl jacket, except **No. 8460**, conductor insulated with Geosol insulation, Copperweld drain wire and white vinyl jacket; **No. 9460** jacket bonded to shield so both can be removed on automatic stripping equipment. **Fig. H Type:** Tinned copper, rubber insulated, conductors cabled, separator, braided tinned copper shield, chrome vinyl jacket. **Fig. J Type:** Balanced pair instrumentation cable featuring short lay cabling to minimize pick-up of electromagnetic interference and special conductive textile tape to minimize microphonic noise. Tinned copper, polypropylene insulated, conductors cabled, noise reducing tape, 24 AWG stranded tinned copper drain wire, Beldfoil aluminum-polyester shield, black vinyl jacket. **No. 9154** similar to **Fig. G,** except vinyl insulated, twisted pair, 22 AWG wire, rose gray vinyl jacket; UL Listed (Style 2094).

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Color Coding	Cap.,* pF/ft.	Work Volts	Net Each, Spool of			
							100′	250′	500′	1000′
8737•▲	F	22 (7 x 30)	.170″	Blk, red	70	300	**$19.60**	**$38.90**	**$ 77.75***	**$128.10***
8759•▲	F	20 (7 x 28)	.199″	Blk, red	79	300	**24.50**	.....	**91.10***	**150.15***
8790•	F	18 (7 x 26)	.241″	Red, wht	92	450	**30.30**	**60.00**	**119.95***	**197.70***
8780•	F	16 (19 x 20)	.266″	Blk, wht	98	450	**37.90**	.....	**127.75***	**255.45***
8640•	G	28 (Solid)	.090″	Blk, red	105	100	.....	**27.15**	**54.15***	.....
9460	G	18 (16 x 30)	.222″	Blk, clear	49	450	.....	.....	**91.40■**	**150.60■**
9461	G	22 (7 x 30)	.175″	Blk, clear	47	300	.....	.....	**63.70■**	**125.00■**
9462•▲	G	22 (7 x 30)	.178″	Blk, red	90	300	**20.85**	.....	**76.80***	**126.60***
9464	G	20 (7 x 28)	.204″	Blk, clear	49	300	.....	.....	**77.85■**	**128.25■**
8641•▲	G	24 (7 x 32)	.168″	Blk, clear	42	300	**16.65**	.....	**64.55***	**125.00*§**
8761•▲	G	22 (7 x 30)	.175″	Blk, clear	47	300	.....	.....	**64.90***	**125.00*§**
8762•▲	G	20 (7 x 28)	.204″	Blk, clear	49	300	**17.85**	**34.80**	**69.45***	**125.00*§**
8760•▲	G	18 (16 x 30)	.222″	Blk, clear	49	300	.....	**41.50**	**83.00***	**136.80*§**
9460	G	18 (16 x 30)	.222″	Blk, clear	49	300	.....	.....	**91.40■**	**150.60■**
8719•▲	G	16 (19 x 29)	.304″	Blk, clear	47	600	.....	.....	**125.00***	**241.65*§**
8720•▲	G	14 (19 x 27)	.340″	Blk, clear	47	600	.....	.....	**184.05***	**368.10§**
8718•▲	G	12 (19 x 25)	.400″	Blk, clear	49	600	.....	.....	**276.25***	**552.45§**
9154•▲	G	20 (7 x 30)	.198″	Blk, red	100	300	.....	.....	**66.65***	**125.00***
8208	H	18 (16 x 30)	.225″	Red, wht	77	200	**38.60**	.....	**127.45***	**254.85***
9452	J	24 (19 x 36)	.135″	Blk, red	58	200	**20.05**	.....	**78.10***	**128.70***

*Between one conductor and other conductor connected to shield. •Passes the FR-1 vertical flame test. ▲U.L. Listed. ®TM: Beldfoil of Belden. §Also available in 2000′ put-up.

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE. ■UNREEL PACKAGE ONLY.**

COOPER INDUSTRIES

BELDEN Electronic Wire and Cable

TWO CONDUCTOR UNSHIELDED CABLES

Fig. A Types: Copper, vinyl insulated, cabled. **Fig. B Types:** Copper, vinyl insulated, cabled, chrome vinyl jacket. **Fig. C Types:** Copper, vinyl insulated, jacket color as noted, parallel cable. All conductors tinned except as noted.

Belden No.	Fig.	AWG and (Stranding)	Colors ‡	Nom. O.D.	Suggested Work Volts	Net Each, Spool of 50′	100′	500′	1000′
8460•▲	A	18 (7 x 26)	3	.180″	300	....	$15.40	$ 53.90	$107.75*
8470•▲	A	16 (19 x 29)	3	.205″	300	....	.....	64.35*	125.00*
9151▲	A	22 (7 x 30)†	2	.108″	90	....	.....	25.60*	51.15*
9152•▲	A	20 (10 x 30)†	2	.125″	90	....	.....	31.40*	62.80*
9497•▲	A	16 (19 x 29)	7	.206″	300	....	.....	86.85*	143.10*
8442•▲	B	22 (7 x 30)	4	.165″	90	....	9.85	34.40*	68.80*
8205•▲	B	20 (10 x 30)	4	.190″	90	....	12.30	40.50*	81.00*
8486•	B	19 (Solid)*	1	.175″	350	....	.....	48.50*	97.05*
8461•▲	B	18 (7 x 26)	3	.226″	90	....	19.50	70.35*	125.00*
9740•▲	B	18 (16 x 30)	4	.224″	300	....	.....	62.25*	125.00*
3471•▲	B	16 (19 x 29)	3	.260″	300	....	.....	100.75*	166.05*
8473•	B	14 (19 x 27)	3	.332″	600	....	.....	131.55*	263.10
8477•	B	12 (19 x 25)	3	.384″	600	....	.....	185.10*	370.20
8782	C	24 (7 x 32)†	5	.058 x .115	300	$ 2.42	5.30	17.85*	35.70*
8649•	C	20 (7 x 28)	6	.073 x .146	300	....	8.15	29.25*	58.45*
9712	C	22 (7 x 30)†	8	.065 x .130	300	4.62	6.75	23.75*	47.50*
9708	C	18 (16 x 30)†	8	.110 x .207	300	6.70	10.65	41.80*	83.55*
9716	C	16 (26 x 30)†	8	.155 x .299	300	12.95	20.60	72.25*	125.00*
9717	C	14 (19 x 27)	†	.121 x .242	...	9.85	19.30	89.65*	147.75*
9718	C	12 (65 x 30)	†	.155 x .310	...	17.40	33.70	132.75	265.50

*Bare. †One cond. tinned. ‡Colors: 1—Brn, tan; 2—specify wht or brn; 3—blk, wht; 4—blk, red: (jacket color) 5—specify chrome, brown, clear or wht; 6—chrome, clear; 7—org, blk; 8—clear. §25′, **$2.22.** ▲UL Listed.

THREE CONDUCTOR UNSHIELDED CABLES

Fig. D Type: Bare copper, vinyl insulated and cabled. **Fig. E Types:** Copper, vinyl insulated, cabled. Chrome vinyl jacket. **Fig. F Types:** Copper, vinyl insulated, parallel cable.

8443▲	E	22 (7 x 30)*	7	.164″	150	$4.37#	$11.50	$ 42.25*§	$ 84.45*
8487•	E	19 (Solid)	6	.180″	300	.....	.....	69.20*	125.00*
9498•▲	D	16 (19 x 29)	9	.220″	300	.....	.....	122.60*	202.05*

*Tinned. †One conductor tinned. ‡Colors: 6, brown, gray, tan; 7, black, green, red; 8, chrome; 9, orange, black, and orange with black stripe. §250′, **$21.15.** ▲U.L. Listed. #25′.

MICROPHONE AND SHIELDED POWER SUPPLY CABLES

Nos. 8401 and 8411: 3 strands copper, 4 strands copper covered steel, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket. **No. 8434:** 3 strands copper, 4 strands Copperweld, tinned, polyethylene insulated, black and red conductors under Beldfoil® ISO-Shield™, stranded ground wire, green and clear conductors under overall Beldfoil aluminum-polyester shield, chrome vinyl jacket. Pairs cabled on common axis to reduce diameter. **No. 8420:** Tinned cadmium bronze, cotton wrap, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket. **No. 8723:** Tinned copper, polypropylene insulated, black and red under Beldfoil ISO-Shield, green and white under Beldfoil aluminum-polyester shield, stranded tinned copper common drain wire, chrome vinyl jacket. Pairs cabled on common axis to reduce dia. **No. 8729:** Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, three 23 AWG solid copper covered steel, one 25 AWG stranded copper covered steel drain wires, white vinyl jacket. Conductors color-coded red, black, green and clear. **Nos. 9533 thru 9546:** Tinned copper, PVC insulated, conductors cabled, Beldfoil aluminum-polyester shield with 24 AWG drain wire, chrome PVC jacket. **No. 9418:** Tinned copper, vinyl insulated, conductors cabled, Beldfoil aluminum-polyester shield with 20 AWG tinned copper drain wire, chrome vinyl jacket. **All Others:** Tinned copper, polyethylene insulated, conductors cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.

Belden No.	Fig.	No. of Cond.	AWG and (Stranding)	Cap.,* pF/ft.	Nom. O.D.	Net Each, Spool of 15′	25′	50′	100′	250′	500′	1000′
8411	G	1	25 (7 x 33)	40	.144″	$ 4.82	$ 6.95	$11.20	$21.20	$42.60	$85.10*	140.25*
8401	G	1	25 (7 x 33)	28	.199″	5.90	8.05	14.50	26.15	54.35	108.65*	179.10*
8420†•	H	2	24 (45 x 40)	42	.185″	8.55	12.65	19.70	36.70	81.55	134.55*	.....
8422	H	2	22 (16 x 34)	36	.231″	7.50	11.50	22.05	37.95	78.45	129.30*	258.60*
8403•	I	3	20 (26 x 34)	45	.244″	10.95	.....	28.30	52.90	112.85	185.95*	371.85*
8404•▲	I	4	20 (26 x 34)	40	.254″	11.75	.....	.....	56.80	124.15	204.55*	409.05*
8405•	I	5	20 (26 x 34)	40	.281″	.....	.....	.....	.....	125.00	239.05*	478.05*
8434	J	4	25 (7 x 33)	40	.165″	.....	.....	.....	22.75	.....	93.20*	153.60*
8723	K	4	22 (7 x 30)	62	.165″	.....	.....	.....	23.30	.....	93.95*	154.80*
8729▲	L	4	22 (19 x 34)	42	.265″	.....	.....	.....	.....	.....	148.00*	295.95*
9533•▲	L	3	24 (7 x 32)	30§	.168″	.....	.....	.....	23.30	.....	81.35*	134.10*
9534•▲	L	4	24 (7 x 32)	30§	.190″	.....	.....	.....	28.50	.....	99.20*	163.50*
9535•▲	L	5	24 (7 x 32)	30§	.195″	.....	.....	.....	33.50	.....	117.70*	193.95*
9536•▲	L	6	24 (7 x 32)	30§	.215″	.....	.....	.....	37.15	.....	125.00*	222.30*
9537•▲	L	7	24 (7 x 32)	30§	.215″	.....	.....	.....	39.70	.....	125.00*	238.50*
9538•▲	L	8	24 (7 x 32)	30§	.220″	.....	.....	.....	43.50	.....	136.20*	272.40*
9539•▲	L	9	24 (7 x 32)	30§	.250″	.....	.....	.....	48.15	.....	150.40*	300.75*
9540•▲	L	10	24 (7 x 32)	30§	.250″	.....	.....	.....	50.35	.....	164.20*	328.35*
9541•▲	L	15	24 (7 x 32)	30§	.280″	.....	.....	.....	88.00	.....	288.85*	577.65*
9542•▲	L	20	24 (7 x 32)	30§	.320″	.....	.....	.....	117.40	.....	385.50*	771.00
9543•▲	L	25	24 (7 x 32)	30§	.360″	.....	.....	.....	125.00	.....	477.00	954.00
9544•▲	L	30	24 (7 x 32)	30§	.380″	.....	.....	.....	159.95	.....	572.25	1144.50
9545•▲	L	40	24 (7 x 32)	30§	.430″	.....	.....	.....	209.85	.....	751.50	1503.00
9546•▲	L	50	24 (7 x 32)	30§	.490″	.....	.....	.....	260.00	.....	930.00	1858.50
9418▲	J	4	18 (19 x 30)	110	.245″	.....	.....	.....	41.90	.....	129.70*	259.35*

*Between one conductor and remaining conductors (if any) connected to shield. †Miniature. ▲U.L. Listed. §Capacitance between conductors. •Passes the FR-1 vertical flame test.

75-OHM PRECISION VIDEO CABLES

High quality carrier of video signal in color or monochrome studios; 100% sweep tested.

Belden No. 9141 (Fig. N)—Has No. 20 solid conductor, polyethylene dielectric, tinned copper double braid shield, clear polyethylene jacket (for indoor use only). Nom. imp., 76 ohms. Nom. cap., 20 pF/ft. Nom. O.D., .305″.

500′ Spool, Net.......................**$269.25** **1000′ Spool,** Net.....................**$538.50**

Belden No. 8279 (Fig. M)—Has 23 (7 x 32) bare compacted conductor, polyethylene insulated, tinned copper braid shield, black polyethylene jacket. Nom. impedance, 75 ohms. Nom. capacitance, 21 pF/ft. Nom. O.D., .220″; fits RG-59/U connectors.

100′ Spool, Net.....**$43.60** **250′ Spool,** Net......**$91.75** **500′ Spool,** Net......**$151.20**

Belden No. 8281 (Fig. N)—Has 20 (solid) copper conductor, polyethylene insul., tinned copper double braid shield, black polyethylene jkt. Nom. imped., 75 ohms. Nom. cap., 21 pF/ft. Nom. O.D., .304″.

500′ Spool, Net.......................**$269.25** **1000′ Spool,** Net.....................**$538.50**

Belden No. 9231• (Fig. N)—Same as 8281 except gray non-contaminating vinyl jacket.

500′ Spool, Net.......................**$335.35** **1000′ Spool,** Net.....................**$670.65**

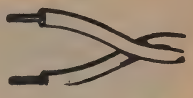
Belden No. 9209 (Fig. M)—Has 23 (7 x 32) bare compacted conductor, polyethylene insulated, Duobond tinned copper braid shield, black polyethylene jacket.

500′ Unreel, Net...**$159.25**

Belden No. 8299 Adapter—Use with PL-259 connector and 8281, 9231 cable only. Net/25 . **$13.05**

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.**

A



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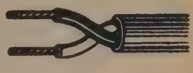

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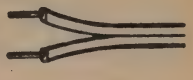

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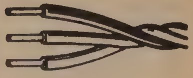

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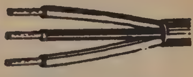

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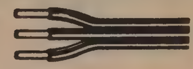

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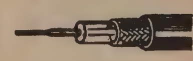

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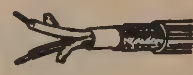

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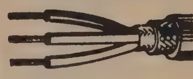

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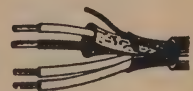

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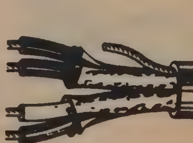

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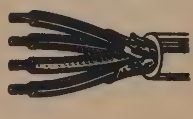

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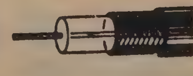

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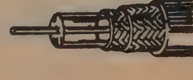
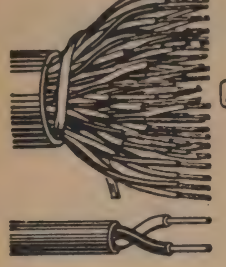


MULTIPLE PAIR UNSHIELDED SOUND CABLES (FIG. A)

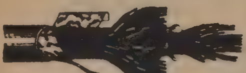

A

Made with 80° C vinyl plastic compounds for high dielectric strength and best physical properties. Conductors are paired with a short-lay twist for conductor balance. Tinned copper, vinyl insulated, cabled in color-coded pairs, chrome vinyl jacket. Voltage, 200 V working except 18 gauge, 400 V. U.L. Listed.

Belden No.	No. of Pairs	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of 100′	500′	1000′
8740•	1	22 (Solid)	.150″	$ 9.20	$ 30.30■	$ 60.65■
8741•	2	22 (Solid)	.209″	16.50	58.55■	117.05*
9744•	2	22 (7 x 30)	.238″	.....	69.00*	125.00*
9156	2	18 (16 x 30)	.287″	.....	125.00*	206.55*
9750•	3	20 (10 x 30)	.309″	31.25	125.00	210.30
8742•	3	22 (Solid)	.244″	21.50	81.55*	134.40*
9745•	3	22 (7 x 30)	.284″	.....	102.10*	168.30*
8690•	3	18 (16 x 30)	.362″	49.80	166.95*	333.90
8757•	4	22 (Solid)	.259″	.....	107.95*	177.90*
9746•	4	22 (7 x 30)	.299″	.....	125.00	214.95
9157	4	18 (16 x 30)	.358″	57.00	194.40	388.80
9158•	5	22 (Solid)	.307″	31.40	125.00	213.90
9159•	5	18 (16 x 30)	.416″	.....	257.95	515.85
9751•	6	20 (10 x 30)	.376″	58.00	198.90	397.80
8743•	6	22 (Solid)	.305″	35.05	125.00*	236.55*
8747•	6	22 (7 x 30)	.320″	42.15	144.40	288.75
8691•	6	18 (16 x 30)	.475″	104.40	358.75	717.45
9160•	8	22 (Solid)	.346″	.....	165.40	330.75
9161•	8	18 (16 x 30)	.478″	121.50	417.00	834.00
9752•	9	20 (10 x 30)	.439″	85.65	301.95	603.90
8744•	9	22 (Solid)	.354″	50.70	176.95	353.85
8748•	9	22 (7 x 30)	.389″	62.55	221.25	442.50
8692•	9	18 (16 x 30)	.575″	125.00	492.75	985.50
8753•	11	22 (Solid)	.369″	64.25	228.00	456.00
9747•	12	22 (7 x 30)	.425″	89.00	304.35	608.70
9741•	12	18 (16 x 30)	.675″	183.25	656.25	1312.50
8754•	13	22 (Solid)	.394″	72.00	257.35	514.65
9755•	15	20 (10 x 30)	.545″	125.00	471.00	942.00
8745•	15	22 (Solid)	.405″	87.00	304.75	609.45
8749•	15	22 (7 x 30)	.440″	104.40	371.80	743.55
9742•	15	18 (16 x 30)	.785″	227.70	816.00	1630.50
8755•	19	22 (Solid)	.460″	111.15	381.00	762.00
9748•	19	22 (7 x 30)	.505″	125.00	469.50	939.00
9743•	19	18 (16 x 30)	.865″	288.00	1030.50	2059.50
8756•	23	22 (Solid)	.495″	.....	462.75	925.50
9749•	23	22 (7 x 30)	.555″	168.65	603.00	1206.00
8746‡•	27	22 (Solid)	.535″	.....	1056.00†	1056.00†
8750‡•	27	22 (7 x 30)	.575″	.....	1411.50†	1411.50†

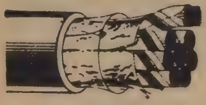
*In self-dispensing Convert-a-Pak. †Per 1000 feet. ‡Available 250′, 500′, 1000′ or 2000′ spools: All spools one piece; lengths may vary +20%, −0%. •Pass FR-1 vertical flame test.

UNSHIELDED SOUND CABLES


B

Belden No. 8751• (Fig. B)—51 pairs of shielded cable, #22 solid tinned copper, vinyl insulated, Beldfoil aluminum-polyester shield over color-coded cabled pairs, #22 (7 x 30) stranded ground drain wire, chrome vinyl jacket. Working volts, 200. Nom. O.D., .710″. Specify length§.

1000 ft., Net....... **$2730.00**
Less than 1000′, per ft. **3.32**


C

Belden No. 9753• (Fig. C)—Same as 8751 except: 102 pairs; nom. O.D., 1.100″. Specify length§.

1000 ft., Net....... **$5280.00**
Less than 1000′, per ft. **6.45**

§Available 250′, 500′, 1000′ or 1500′ spools: All spools one piece; lengths may vary +20%, −0%.

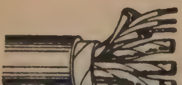
Belden No. 8752• (Fig. B)—38 pairs of shielded cable, same as 8751 but polypropylene insulated. Nom. O.D., .600″. Specify length♦.

1000 ft., Net....... **$2394.00**
Less than 1000′, per ft. **2.91**

♦Available 250′, 500′ or 1000′ spools: All spools one piece; lengths may vary +20%, −0%. Above cables pass FR-1 vertical flame test.

WRITE FOR COLOR CODING

MULTIPLE PAIR INDIVIDUALLY SHIELDED CABLES (FIG. D)

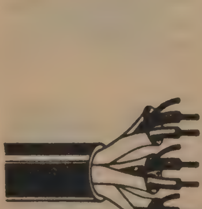

D

Conductors 22 gauge vinyl or 18 and 22 gauge polypropylene insulated, cabled in color-coded pairs, each pair and its ground wire under Beldfoil® aluminum-polyester shield, overall chrome vinyl jacket. Working voltage, 300 V, 22 AWG; 350 V, 20 AWG; 400 V, 18 AWG. Nom. capacitance between conductors, 77 pF/ft., vinyl; 55 pF/ft., polypropylene. Pass FR-1 vertical flame test.

*Vinyl; all others polypropylene insulation. §O.D., .175″ x .280″. All spools one piece; lengths may vary +20%, −0%. U.L. Listed. †Per 1000 ft.

Belden No.	No. of Pairs	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of 100′	250′	500′	1000′
8767*	3	22 (Solid)	.279″	$ 38.50	......	$135.25*	$270.45
8768*	6	22 (Solid)	.379″	78.45	......	281.95	563.85
8764*	9	22 (Solid)	.425″	106.30	......	401.25	802.50
8765*	11	22 (Solid)	.470″	125.00	......	477.00	954.00
8766*	15	22 (Solid)	.525″	169.05	......	654.75	1309.50
8777	3	22 (7 x 30)	.301″	43.70	$ 95.30*	157.05*	314.10
8778	6	22 (7 x 30)	.401″	87.65	164.70	329.40	658.80
8774	9	22 (7 x 30)	.443″	125.00	242.25	484.50	969.00
8775	11	22 (7 x 30)	.486″	148.60	288.00	576.00	1152.00
9768	12	22 (7 x 30)	.486″	161.90	308.65	617.25	1234.50
8776	15	22 (7 x 30)	.580″	194.90	381.00	762.00	1522.50
9769	17	22 (7 x 30)	.615″	236.60	444.75	889.50	1777.50
8769	19	22 (7 x 30)	.625″	264.20	507.75	1015.50	2029.50
8773	27	22 (7 x 30)	.745″	363.15	2833.00†	2833.00†	2833.00†
9873	3	20 (10 x 30)	.356″	54.00	114.75	189.10	378.15
9874	6	20 (10 x 30)	.471″	107.75	191.65	383.25	766.50
9875	9	20 (10 x 30)	.555″	153.15	280.15	560.25	1120.50
9876	11	20 (10 x 30)	.580″	179.65	338.25	676.50	1353.00
9877	12	20 (10 x 30)	.600″	193.15	363.75	727.50	1455.00
9879	15	20 (10 x 30)	.655″	233.45	439.50	879.00	1758.00
9773	3	18 (16 x 30)	.398″	69.00	......	242.55	485.10
9774	6	18 (16 x 30)	.570″	125.00	......	497.25	994.50
9775	9	18 (16 x 30)	.655″	204.75	......	750.00	1500.00
9776	12	18 (16 x 30)	.750″	270.50	......	999.00	1996.50
9777	15	18 (16 x 30)	.820″	337.25	......	1245.00	2488.50
9402	2	20 (10 x 30)	.300″	.....	......	125.95■	251.85
9406*	2	22 (7 x 30)	§	34.60	......	125.00*	208.20*

MULTIPLE PAIR INDIVIDUALLY SHIELDED DIRECT BURIAL, AUDIO AND DATA CABLE (FIG. E)


E

Especially designed for direct burial installation. Tinned copper, polypropylene insulated, Beldfoil aluminum-polyester shield over individually twisted pairs with 22 AWG stranded tinned copper drain wire, black high density polyethylene jacket.

Belden No.	No. of Pairs	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of 100′	500′	1000′
9883	3	20 (10 x 30)	.340″	.....	$205.90	$411.75
9886	6	20 (10 x 30)	.480″	.....	433.50	867.00
9890	10*	20 (Solid)	.310″	.....	253.65	507.30
9894	15*	20 (Solid)	.390″	.....	329.50	658.95
9802	2*	20 (Solid)	.205″	.....	61.90	123.80
9803	3*	20 (Solid)	.205″	.....	78.90	130.05

*Conductors; not paired.

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE. ■UNREEL PACKAGE ONLY.**

COOPER INDUSTRIES

BELDEN Electronic Wire and Cable

DATA AND INSTRUMENTATION CABLES

Belden No. 9784• (Fig. B)—Six pair; 24 AWG (7 x 32) stranded tinned copper, foam polypropylene insulation, cond. cabled, each pair has separate aluminum-polyester shield with 24 AWG drain wire, chrome vinyl jacket. Nom. O.D., .454″; nom. cap. between cond., 12 pF/ft. WV, 60 V.
500′ Spool, Net.................**$331.45** **1000′ Spool,** Net..................**$662.85**

Belden No. 8725• (Fig. B)—Four pair; 20 AWG (7 x 28) tinned copper cond., polypropylene insulated. four groups of 2 conductors with 22 AWG drain wire. Each group individually Beldfoil aluminum-polyester shield with polyester tape wrap, chrome vinyl jacket. Nom. O.D., .345″; cap. between cond., 27 pF/ft. WV, 400 V. Cabled around common axis.
500′ Spool, Net.................**$324.30** **1000′ Spool,** Net..................**$648.60**

Belden No. 8700 (Fig. C)—28 AWG (Solid) tinned copper, polypropylene insul., bare copper braid shield, black vinyl jacket. Shield coverage, 91%. Nom. O.D., .054″. Nom. cap., 48 pF/ft.
25′ Spool, Net...................**$ 8.80** **50′ Spool,** Net....................**$14.75**
100′ Spool, Net..................**$25.25** **250′ Spool,** Net...................**$56.55**

Belden No. 9272▲ (Fig. E)—Two 20 AWG (7 x 28) tinned copper cond., polyethylene color coded insulation, tinned copper braid shield, blue vinyl jacket. Nom. O.D., .242″; cap., 19.7 pF/ft. U.L. Listed.
100′ Spool, Net...**$35.60** **500′ Spool,** Net......**$125.00*** **1000′ Spool,** Net....**$227.85***

Belden No. 9271•▲ (Fig. F)—Two 25 (7 x 33) tinned copper cond., polyethylene color coded insulation Beldfoil aluminum-polyester shield with stranded tinned copper drain wire, blue vinyl jacket. Nom. cap., 12.2 pF/ft. 25 AWG (7 x 33); nom. O.D., .242″. U.L. Listed.
100′ Spool, Net...**$19.50** **500′ Spool,** Net........**$73.80*** **1000′ Spool,** Net....**$125.00***

HI-FI, STEREO AND PHONOGRAPH CABLES

Belden No. 8430• (Fig. G)—Phono arm cable has two 32 AWG, 7 x 40 stranded, tinned copper conductors, vinyl insulated, twisted pair. O.D., .050″ nominal. Coded black, red. Capacitance, 21 pF/ft., nom.
10′ Spool, Net.......**$3.17** **25′ Spool,** Net.......**$4.39** **250′ Spool,** Net.......**$25.30**

Belden No. 8429• (Fig. H)—Phono arm cable same as above, but with tinned copper braid shield. Capacitance 50 pF/ft. one conductor to other conductor and shield. Nom. O.D., .057″.
10′ Spool, Net.........**$4.17** **25′ Spool,** Net.........**$6.90** **250′ Spool,** Net......**$46.70**

Belden No. 8421 (Fig. J)—Hi-Fi connecting cable has single 25 AWG. 7 x 33 stranded of 3 strands tinned copper, 4 strands copper covered steel; cellular polyethylene insulated for low loss, tinned copper spiral wrapped shield and chrome vinyl jacket. O.D., .180″ nominal. Capacitance, 20 pF/ft., nominal.
15′ Spool, Net.....**$5.85** **25′ Spool,** Net...........**$7.75** **50′ Spool,** Net.........**$13.95**
100′ Spool, Net.....................**$23.15** **250′ Spool,** Net.......................**$51.15**

Belden No. 9456 (Fig. J)—Hi-Fi connecting cable has single 30 AWG (7 x 38) stranded, tinned, copper covered steel), foam polyethylene insulated, tinned copper spiral wrapped shield, gray vinyl jacket. O.D., .160″, nominal. Capacitance, 12 pF/ft., nominal.
25′ Spool, Net......................**$10.95** **100′ Spool,** Net **$29.95**

Belden No. 9454—Two of **No. 9456** side-by-side with black vinyl jacket. Polarity ribbed.
25′ Spool, Net......................**$19.60** **100′ Spool,** Net **$52.90**

Belden No. 8416 (Fig. K)—Stereo, language lab. Same as 8421 except: Polyethylene insulated; color coded red, clear (polarity rib on red): individually shielded. O.D., .106″ x .213″. Nom. cap., 35 pF/ft. between conductors, each channel. **15′ Spool,** Net.......**$ 6.75** **25′ Spool,** Net.......**$ 8.40**
50′ Spool, Net........**$15.75** **100′ Spool,** Net......**$27.95** **250′ Spool,** Net......**$62.25**

Belden No. 8417• (Fig. L)—Min. audio connecting cable, totally shielded. Same as 8416 except single cond. with double Beldfoil aluminum-polyester shield, inner shield folded, 25 AWG stranded tinned copper, grd. drain wire. Nom. O.D., .140″. Nom. cap., 29 pF/ft. between cond.
15′ Spool, Net.........**$5.40** **25′ Spool,** Net.........**$6.40** **50′ Spool,** Net......**$ 9.95**
100′ Spool, Net.......................**$18.75** **250′ Spool,** Net.......................**$40.70**

Belden No. 9264• (Fig. V)—Hi-fi cable has one 24 AWG, 7 x 32 stranded conductor, flame retardant polyethylene ins. Beldfoil aluminum-polyester shield, black vinyl jacket. No. O.D., .122 x .146″. Nom. impedance, 50 ohms. Nom. cap between cond's., 34 pF/ft. UL Listed. **100′ Spool,** Net..**$17.30**
250′ Spool, Net.......**$36.15** **500′ Spool,** Net......**$72.20** **1000′ Spool,** Net.....**125.00**

SPECIAL AUDIO AND SOUND CABLES

Belden No. 8734• (Fig. M)—Tinned copper, vinyl insulated, 1 white coded conductor with tinned copper braid shield, 3 conductors cabled, chrome vinyl jacket; unshielded conductors coded black, red, white. Conductors 22 AWG, 7 x 30 stranded. O.D., .194″ nominal. Suggested 300 V working.
100′ Spool, Net.......**$24.85** **500′ Spool,** Net.....**$96.30*** **1000′ Spool,** Net....**$158.70***

Belden No. 8763 (Fig. N)—Three 20 AWG, 7 x 28 stranded, tinned copper conductors polyethylene insulated; 2 conductors (black red) shielded in Beldfoil aluminum-polyester shield; unshielded conductor coded clear, #20 stranded tinned copper ground drain wire, chrome vinyl jacket. O.D., .210″ nominal. Suggested 350 V working. **500′ Spool,** Net...**$108.05*** **1000′ Spool,** Net...**$178.05***

Belden No. 8732▲ (Fig. O)—Four 22 AWG. 7 x 30 stranded tinned copper conductors polyethylene insulated; tinned copper braid shield over 2 (black, clear) conductors; unshielded conductors coded black, clear; overall chrome vinyl jacket. O.D., .190″ x .300″ nominal. Suggested 300 V working. U.L. Listed.
100′ Spool, Net....**$30.80** **500′ Spool,** Net....**$122.15*** **1000′ Spool,** Net....**$201.30***

Belden No. 8722• (Fig. P)—Four 20 AWG, 7 x 28 stranded, tinned copper conductors vinyl insulated; Beldfoil aluminum-polyester shield over 2 conductors (black, red); unshielded conductors coded green, white; #22 stranded tinned ground drain wire, chrome vinyl jkt. O.D., .230″ nom. Suggested 350 WV. Pairs cabled on common axis to reduce dia. **500′ Spool,** Net **$125.00*** **1000′ Spool,** Net **$223.95***

Belden No. 8724• (Fig. P)—Same as 8722, but 22 AWG, 7 x 30 stranded, 24 AWG stranded tinned copper ground drain wire, 200 working volts; polypropylene insulated, nominal O.D., .165″.
250′ Spool, Net......**$45.45** **500′ Spool,** Net.... **$90.85*** **1000′ Spool,** Net....**$149.70***

Belden No. 9155▲ (Fig. P)—Same as 8724 but 20 AWG, 7 x 28 shielded, and 18 AWG, 16 x 30 unshielded, 22 AWG stranded tinned copper drain wire; beige vinyl jacket. O.D., .256″ nominal. Suggested 300 V. working. U.L. Listed. **500′ Spool,** Net....**$125.00*** **1000′ Spool,** Net....**$233.25***

Belden No. 8728▲ (Fig. Q)—Four 22 AWG. 7 x 30 stranded, tinned copper, polypropylene insulated, cabled in pairs, each pair has Beldfoil aluminum-polyester shield with copper drain wire and polyester film over shields, overall Beldfoil aluminum-polyester shield, stranded tinned copper drain wire, chrome vinyl jacket. Color coded red, blk, grn, wht. Pairs cabled on common axis to reduce diameter. O.D., .206″ nom. 400 WV, suggested. U.L. Listed. **500′ Spool,** Net **$137.10*** **1000′ Spool,** Net **$274.20***

Belden No. 8730 (Fig. R)—Four 22 AWG, 7 x 30 stranded, tinned copper, polypropylene insulated; Beldfoil aluminum-polyester shield over one pair (red, blk) with stranded tinned copper drain wire; unshielded coded green, white; chrome vinyl jacket. Pairs cabled on separate axis for reduced magnetic coupling. O.D., .205″ nom. 200 WV suggested.
500′ Spool, Net....................**$125.00*** **1000′ Spool,** Net...................**$213.45***

Belden No. 8733 (Fig. S)—Three 22 AWG, 7 x 30 stranded, tinned copper conductors, polyethylene insulated, each has separate Beldfoil aluminum-polyester shield; ground wire for each conductor is tinned cadmium bronze ribbon under Beldfoil aluminum-polyester shield; conductors cabled and color coded, black red and clear. Overall chrome vinyl jacket. Nominal .205″ O.D. Suggested 350 V working.
100′ Spool, Net.....................**$29.15** **500′ Spool,** Net...................**$107.85***

Belden No. 8788 (Fig. T)—Same as 8733 but vinyl insul., color coded blk, red, grn, plus 2 cond. unshielded. cabled around vinyl filler (yel., blue). Nom. O.D., .236″. **500′ Spool,** Net......**$147.10***

Belden No. 8640• (Fig. U)—Two 28 AWG solid copper, Geosol™ insulated, conductors cabled in pairs, Beldfoil aluminum-polyester shield over pair, 30 AWG solid tinned copper covered steel drain wire, white vinyl jacket. Color coded blk, red. Nom. O.D., .090″; cap. between cond. 55 pF/ft.
250′ Spool, Net......................**$27.15** **500′ Spool,** Net........................**$54.15***

®TM: Beldfoil of Belden. •Passes the FR-1 vertical flame test. *Unreel available, same price. ▲UL Listed.

B

C

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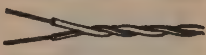
F

G


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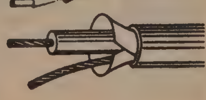
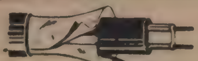


BELDEN Electronic Wire and Cable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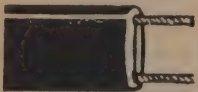
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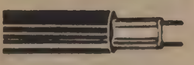
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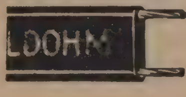
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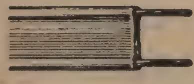
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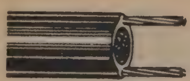
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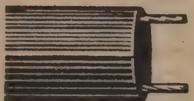
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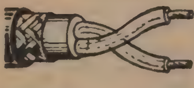
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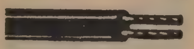
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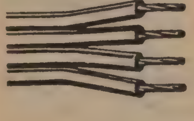
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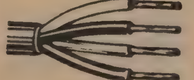
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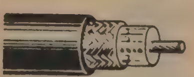
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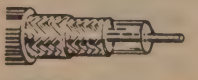
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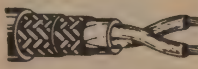
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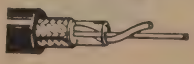
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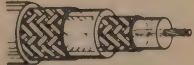
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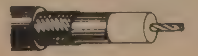
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TRANSMISSION LINE CABLES

300 OHM IMPEDANCE TWIN LEAD WIRE

No. 9090 Metro: Two 26 AWG 7 × 34 stranded copper covered steel conductors, orange polyethylene insulation and web between conductors, cellular polyethylene oval insulation, Beldfoil® aluminum-polyester shield stranded tinned drain wire, brown or tan vinyl jacket. **No. 9085 Maxi**: Two 22 AWG 7 × 30 stranded copper covered steel parallel conductors, cellular brown polyethylene oval jacket. **No. 8290 Permohm®**: 100% sweep tested. Two 22 AWG 7 × 30 stranded copper covered steel conductors, orange polyethylene insulation and web between conductors, cellular polyethylene oval insulation, Beldfoil aluminum-polyester shield, stranded tinned drain wire, brown polyethylene jacket. **No. 8285 Permohm**: Two 22 AWG 7 × 30 stranded copper covered steel parallel conductors, orange polyethylene insulation and web between conductors, cellular brown polyethylene oval jacket. **No. 8230 Weldohm®**: Two 20 AWG 7 × 28 stranded bare copper covered steel parallel conductors, brown polyethylene insulated. **No. 8225**: Two 20 AWG 7 × 28 stranded bare copper parallel conductors, brown polyethylene insulated. **No. 8226**: Same as 8225 except for indoor use only; specify ivory or clear. **No. 8275 Cellulina®**: Two 20 AWG 7 × 28 stranded bare copper covered steel parallel conductors, brown polyethylene jacket with inert gas filled unicellular polyethylene core. **No. 8235**: Rated 1 kW for amateur transmitting and receiving. Two 18 AWG 7 × 26 stranded bare copper parallel conductors, brown polyethylene insulated.

Belden No.	Fig.	Nominal O.D. Inch	Nominal Atten.* dB	Net Each, Coil of 25′	Net Each, Coil of 50′	Net Each, Coil of 75′	Net Each, Spool of 100′	Net Each, Spool of 250′	Net Each, Spool of 500′	Net Each, Spool of 1000′
9090	A	.215 × .345	6.4	$8.00	$10.75	$13.85	$16.85	…………	$ 79.75	………
9085	B	.165 × .400	2.8	3.84	5.30	6.50	8.05	…………	33.30	$ 66.60
8290	A	.305 × .515	3.5†	………	20.75	27.40	34.80	$80.75	133.05	………
8285	C	.255 × .468	2.8	………	8.95	11.95	15.30	33.35	66.55	125.00
8230	D	.072 × .400	2.2	2.85	4.08	5.45	6.75	…………	31.80	59.90
8225	D	.058 × .400	2.2	2.58	3.86	4.95	6.10	…………	28.70	54.05
8226	E	.058 × .400	2.2	2.58	3.86	4.95	6.10	…………	…………	………
8275	F	.300 × .400	2.1	………	8.05	10.95	14.05	…………	62.65	125.00
8235	G	.185 × .520	2.2▲	………	………	………	19.75	…………	86.95	………

*Attenuation per 100′ at 300 MHz. †At 213 MHz. ▲At 400 MHz.

SHIELDED 100-OHM IMPEDANCE LINE (FIG. H)

Belden No. 8227●▼—One tinned, one bare 20 AWG, 7 × 28 stranded copper conductors, polyethylene insulated, cabled, in polyethylene jacket, tinned copper braid shield with overall black vinyl jacket. O.D., .330″ nom. Cap., 15.5 pF/ft. nom. Attenuation 4.1 dB at 100 MHz, 10.2 dB at 400 MHz. U.L. Listed. **500′ Spool,** Net . . **$204.85: 1000′ Spool,** Net . . **$409.65: 2000′ Spool,** Net . . **$820.50**

ANTENNA ROTATOR CABLE

Fig. J. Types: Bare copper, parallel. 8464 chrome vinyl insulated, 1 cond. tinned and insulation ribbed. 9404 gold vinyl insulated, 8463 brown polyethylene insulated, 9403 black polyethylene insulated, 1 cond. tinned. Suggested working, 200 V, **Fig. L Type**: Bare copper cond. vinyl insulated, cabled, chrome vinyl jacket. Color Coded: 1—Black; 2—Green, 3—Red, 4—White, 5—Yellow. Suggested working, 200 V; 8489, 400 V.

Belden No.	Fig.	No. Cond.	AWG and (Stranding)	Nom. O.D., Inch	Net Each, Spool of 50′	Net Each, Spool of 75′	Net Each, Spool of 100	Net Each, Spool of 500′	Net Each, Spool of 1000′
8463	J	5	20 (7 × 28)	.070 × .375	$11.40	$16.65	$21.85	$ 96.40	…………
8464●	J	4	20 (7 × 28)	.070 × .390	10.20	13.75	17.95	74.00	$125.00
9403	J	3	20 (7 × 28½)	.075 × .360	6.55	8.85	11.05	51.45	…………
9404	J	3	20 (7 × 28½)	.075 × .350	6.95	9.40	11.65	54.15	…………
8484●	K	4	20 (7 × 28)	.180	…………	…………	18.75	72.75*	125.00*
8489‡●▼	K	4	18 (16 × 30)§	.254	…………	…………	28.15	112.30*	185.10*
8485●	K	5	20 (7 × 28)	.190	…………	…………	23.15	90.45*	149.10*
8488†●	K	8	22 (7 × 30)	.205	…………	…………	26.85	107.20*	176.70*
9405	K	8	2-16 (26 × 30) 6-18 (16 × 30)	.345″	…………	…………	125.00◆	222.10	444.15
8448	K	8	6-22 (7 × 30) 2-18 (16 × 30)	.258″	8.40‡	…………	40.50††	133.20*	266.40*

†Color coded blk, blue, brn, grn, orange, red, wht, yel. ‡Color coded blk, wht, red, grn. §Tinned copper. #250′, **$56.15.** ●Passes the FR-1 vertical flame test. ▼U.L. Listed. ◆250′. ‡15′. ††250′, **$80.85.**

RG/U TRANSMISSION LINE CABLES

Polyethylene insulation over conductors except as otherwise indicated.

Belden No.	Fig.	No. RG-	AWG and (Stranding)	Shields No.	Shields Type	Jack-et	Nom. O.D.	Net Each, Spool of 25′	Net Each, Spool of 50′	Net Each, Spool of 100′	Net Each, Spool of 500′	Net Each, Spool of 1000′
8237●§	L	8/U	13 (7 × 21) b	1	b	BV	.405″	……	$28.15	$52.25	$166.05	$332.10
9251*●▼	L	8A/U	13 (7 × 21) b	1	b	BN	.405″	……	…….	73.20	227.80	455.55
8242●§	M	9/U	13 (7 × 21) a	2	a, b	GN	.420″	……	…….	275.20	………	2061.00
8238●§	L	11/U	18 (7 × 26) c	1	b	BV	.405″	……	…….	55.80	175.90	351.75
9232▼	M	11/U	14 (19 × 27) b	2	b	B	.520″	……	…….	…….	596.25	1192.50
8261*●	L	11A/U	18 (7 × 26) c	1	b	BN	.405″	……	…….	…….	202.75	405.45
9250*●	N	22B/U	18 (7 × .0152) d	2	c	BN	.420″	……	…….	122.85	409.50	819.00
8259§	L	58A/U	20 (19 × .0071) c	1	c	BV	.193″	$7.65	11.65	22.20	75.10*	125.00*
8240§▼	L	58/U	20 (Solid) b	1	c	BV	.193″	7.20	11.20	19.60	67.55*	125.00*
8262*	L	58C/U	20 (19 × .0071) c	1	c	BN	.193″	……	…….	…….	89.00*	146.70*
8263*	L	59B/U	.023 (Solid)‡	1	b	BN	.241″	……	…….	…….	112.30*	185.10*
8255*▼	O	62B/U	24 (7 × 32)†‡	1	b	BN	.242″	……	…….	…….	125.00*	222.60*
9252*▼	L	122/U	22 (27 × 36) c	1	c	BN	.160″	……	…….	27.05	99.85*	164.55*
8216*▼	L	174/U	26 (7 × 34)‡	1	c	BV	.100″	……	…….	17.95	62.55	125.05
8218	L	………	27 (7 × 35)‡	1	c	BV	.150″	……	…….	23.85	85.20*	140.40*
8267*●▼	L	213/U	13 (7 × 21) b	1	b	BN	.405″	……	…….	…….	227.80	455.55
8268*●▼	M	214/U	13 (7 × .0296) a	2	a	BN	.425″	……	…….	…….	1152.00	2302.50
9273*▼	M	223/U	19 (Solid) a	2	a	BN	.212″	……	…….	125.00	449.25*	898.50*
9222	P	………	20 (7 × 28) c	2	c	YV	.240″	……	…….	43.95	149.40*	………
9267	P	59/U	20 (Solid) b	2	b	B	.360″	……	…….	85.90	319.45	638.85
9239	Q	174/U	26 (7 × 34)	1	c	BV	.101″	……	…….	20.85	77.20	127.20
9223	Q	58/U	22 (7 × 30) c	1	c	BV	.195″	……	…….	31.85	125.00	211.50
9224	Q	59/U	22 (Solid)	1	b	BV	.240″	……	…….	34.50	125.00*	224.85*
9208	L	8/U	13 (7 × 21) b	1	b	BV	.397″	……	…….	45.15	137.80	275.55
9201	L	58/U	20 (Solid) b	1	b	BV	.193″	……	…….	10.60	39.25*	78.45*
9310▼	Q	58/U	20 (Solid) b	2	c, e	BV	.193″	……	…….	18.75	66.20*	125.00*
9311▼	Q	58/U	20 (19 × 32) c	2	c, e	BV	.193″	……	…….	28.15	102.65*	169.20*
9258	L	8/X	16 (19 × 29) b	1	b	#	.242″	10.95	17.75	31.05	96.05*	158.25*
9212●	L	11/U	18 (7 × 26) c	1	b	BN	.405″	……	…….	49.80	180.85	361.65
9203	L	58/U	20 (19 × .0071) c	1	c	BN	.193″	……	…….	…….	97.95*	161.40*
9240	L	59/U	22 (Solid)‡	1	b	BV	.240″	……	…….	…….	125.00*	125.00*
9204	L	59/U	.023 (Solid)‡	1	b	BN	.241″	……	…….	…….	118.85*	195.90*
9862●	O	62A/U	22 (Solid)‡	1	b	BN	.242″	……	…….	…….	117.95*	194.40*
9264●	……	………	24 (7 × 32) b	1	f	BV	…….	……	…….	17.30	72.20	125.00
9393	……	………	30 (Solid) b	1	f	……	…….	……	…….	22.05	70.65	125.00
8232	P	59/U	20 (Solid)	2	b	BP	.315″	……	…….	…….	174.40	348.75
8233	P	11/U	14 (Solid)	2	b	BP	.475″	……	…….	…….	306.00	612.00

*MIL-C-17D spec. §JAN-C-17A spec. †Semi-solid polyethylene insulation. ‡Bare copper covered steel. a—Silver-coated copper. b—Bare copper. c—Tinned copper. d—Bare copper, one cond. has tinned center strand, e—Duobond®. f—Beldfoil.® BN—Black non-contaminating vinyl. BV—Black vinyl. GN—Gray non-contam. vinyl. YV—Yellow vinyl. B—Black Hypalon. BP—Black polyethylene. ●Passes the FR-1 vertical flame test. ▼U.L. Listed. #Black or white vinyl jacket. #Black or white PVC.

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.**

CATV-MATV COAXIAL CABLES

All 100% sweep tested. Solid bare copper covered steel conductors are cellular polyethylene insulated. **Nos. 9233 and 9234:** Duofoil® shield, black or white vinyl jacket; four spirally applied tinned copper covered steel drain wires. **No. 9230:** Duofoil shield, black vinyl jacket; four spirally applied tinned copper covered steel drain wires. **No. 8221:** Bare copper braid shield, gray, white or black vinyl jacket. **Nos. 8212, 8213 and 9274:** Bare copper braid shield, black polyethylene jacket. **No. 8228:** Duofoil shield, white, black or beige vinyl jacket; four spirally applied tinned copper covered steel drain wires. **Nos. 8215 and 9290:** Two bare copper braid shields, black polyethylene jacket. **Nos. 8232 and 8233:** Two bare copper braid shields, black polyethylene jacket. **No. 9244:** Bare copper braid shield with black vinyl jacket. **Nos. 9248 and 9292:** Two Duofoil and one tinned copper braid. **Nos. 9246 and 9247:** Two Duofoil and one tinned copper braid, black vinyl jacket, 9246 without steel messenger. **Nos. 9243 and 9291:** Duofoil plus aluminum braid shielding; black vinyl jacket; RG-59/U type. **No. 9266:** Two Duofoil and one tinned copper braid shield, black vinyl jacket. **No. 8241:** Bare copper braid shield, black vinyl jacket. **Nos. 9275 and 9276:** Duofoil and aluminum braid. **Nos. 9100 and 9114:** Duobond shield, aluminum braid and black vinyl jacket. **No. 9385:** Same, except has galvanized steel messenger. **Nos. 9587 and 9590:** Duofoil and aluminum braid shields, flooding protection for direct burial, black polyethylene jacket.

Belden No.	Fig.	AWG	O.D.	Nominal			Net Each, Spool of			
				pF/ft.	Attenuation*					
					dB	MHz	100′	500′	1000′	2000′
9233	A	22	.216″	16.3	6.5	500	.....	$ 55.00*	$109.95*	......
9234	A	20	.225″	17.3	6.2	500	.....	56.80*	113.60*	......
8221	B	22	.240″	16.3	5.8	400	$24.70	79.00*	130.20*	......
8212	B	20	.242″	17.3	6.2	500	.....	82.45*	135.90*	$ 271.80
8228	A	18‡	.242″	17.3	5.0	500	19.85	61.55*	123.05*	......
8215	C	21	.332″	20.5	5.9	400	.....	156.15	312.30	......
9230	A	14‡	.380″	17.3	3.7	500	.....	140.95	281.85	563.70
8213	B	14‡	.405″	17.3	3.7	500	.....	159.30	318.60	638.00
8232	D	20‡	.315″	17.3	6.0	500	.....	174.40	348.75	697.50
8233	D	14	.475″	17.3	3.7	500	.....	306.00	612.00	1224.00
9244■■	B	22	.240″	21.0	7.1	400	.....	125.00•*	125.00•*	......
9275	A	20‡	.242″	17.3	6.2	500	.....	97.75•	97.75•*	......
9276	A	20‡	▴	17.3	6.2	500	.....	......	125.00•	......
9243	A	20	.242″	17.3	8.6	900	.....	104.85•*	104.85•*	......
9266	A	20	.242″	17.3	6.2	500	.....	63.10	125.00*	......
8241■■	E	22	.242″	21.0	7.1	400	23.50	72.55*	125.00*	......
9291	A	22	.242″	16.3	9.0	900	.....	94.45•	94.45•*	.....
9101	F	20	▴	17.3	6.2	500	.....	.....	125.00	.....
9100	G	20	.242″	17.3	6.2	500	.....	107.75•■	107.75•*	107.75•
9274	B	20	.242″	17.3	6.2	500	.....	125.00•	125.00•*	125.00•
9115	H	18	⧫	17.3	5.0	500	.....	.....	131.05	.....
9114	G	18	.275″	17.3	5.0	500	.....	125.00•■	125.00•*	.....
9290	C	18	.288″	17.3	5.0	500	.....	243.00•*	243.00•	.....
9292	G	14	.405″	17.3	3.7	500	.....	.....	252.60	.....
9145	A	20	.236″	17.3	6.2	500	.....	77.00*•	77.00*•	.....
9146	A	18	.275″	17.3	5.0	500	.....	99.20*•	99.20*•	.....
9011	A	14	.405″	17.3	3.7	500	.....	.....	217.35	.....
9012	F	14	§	17.3	3.7	500	.....	.....	246.40	.....

*Attenuation per 100′. †.280″ x .415″. ‡Bare Copper. ▴.240″ x .385″. ****25′ Spool, Net**.........**$8.25** **50′ Spool,** Net.....**$13.40** ■■U.L. Listed. •Per 1000′. ⧫.280″ x .395″. §.405″ x .570″.

LOCAL AREA NETWORK CABLES

Belden No. 9880 (Fig. H)—.0855″ solid tinned copper center conductor, cellular polyethylene dielectric, aluminum/polyester foil shield, 92% overall tinned braid, Duofoil shield, 92% overall tinned copper braid, yellow vinyl jacket. Cap., 26 pF/ft.; nom. O.D., .405″. U.L. Listed Style 1478.
500′ Spool, Net...**$434.25** **1000′ Spool,** Net....**$868.50** **1640′ Spool,** Net...**$1425.00**
Belden No. 89880 (Fig. H)—Same, except cellular Teflon insulation and orange Teflon jacket.
100′ Spool, Net...**$480.00** **500′ Spool,** Net...**$4350.00•** **1000′ Spool,** Net....**$4350.00**
Belden No. 9248 (Fig. A)—No. 18 AWG bare copper conductor, cellular polyethylene dielectric, Duofoil 61% tinned copper shield, black vinyl jacket.
500′ Spool, Net....................**$81.45*** **1000′ Spool,** Net....................**$134.25***
Belden No. 9891 (Fig. H)—Three pairs of No. 22 (7 x 30) stranded tinned copper and one pair No. 20 (7 x 28) stranded tinned copper, each pair twisted and shielded with Beldfoil aluminum/polyester shield, No. 20 AWG tinned copper drain wire, 94% coverage tinned copper braid overall, blue vinyl jacket. U.L. Listed Style 2919.
100′ Spool, Net...**$125.00** **500′ Spool,** Net.....**$400.50** **1000′ Spool,** Net....**$801.00**
Belden No. 9892 (Fig. H)—Same, except four pairs No. 20 (7 x 28) stranded tinned copper. Nom. O.D., .420″. U.L. Listed Style 2919.
100′ Spool, Net...**$125.00** **500′ Spool,** Net.....**$420.00** **1000′ Spool,** Net....**$840.00**
Belden No. 9893 (Fig. H)—Same as No. 9891, except five pairs No. 20 (7 x 28) stranded copper. U.L. List ed Style 2919.
100′ Spool, Net...**$170.30** **500′ Spool,** Net.....**$562.50** **1000′ Spool,** Net...**$1125.00**
•Per 1000′.

ETHERNET™ MOLDED CABLE ASSEMBLIES

Molded cable assemblies meet all requirements of paragraph 7.2.3 of "The Ethernet" specifications for extension cords. Belden No. 9892 cable is assembled with "D" subminiature connectors (15 pins) with "Omni-Shield" protection shielding. The male connector has locking posts while the female has a side locking device.

Belden Number	Length		Net Each, Lots of		
	Meters	Feet	1-24	25-49	50-Up
9700	3	9.8	$35.75	$30.25	$24.65
9701	5	16.4	41.60	35.20	28.75
9702	7	23.0	47.45	40.15	32.90
9703	15	49.2	70.85	59.95	49.05
9704	20	65.6	87.10	73.70	60.40

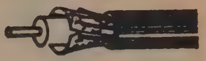
™Trademark of Xerox Corp.

COAXIAL TV CABLE

All 100% shielded, low loss foam 59/U type, 75-ohm cables for color or black and white TV installations as well as FM stereo systems. Fitted with F connectors at each end. Nos. 9345–9359, specify white or beige, indoor use; 9360–9362, black, with weatherproof boot for outdoor use.

Belden No.	Length	Net Ea., Lots of 5	Belden No.	Length	Net Ea., Lots of 5	Belden No.	Length	Net Ea., Lots of 5
9357	3′	$4.22	9345	25′	$6.55	9361	75′	$13.60
9359	12′	5.80	9360	50′	9.45	9362	100′	15.25

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.** ■**UNREEL PACKAGE ONLY.**

A


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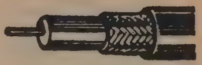

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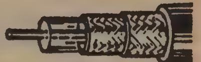

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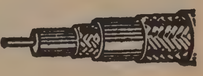

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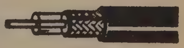

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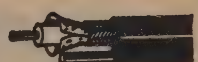

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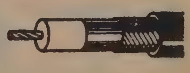

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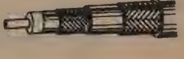
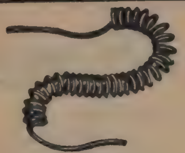


BELDEN Electronic Wire and Cable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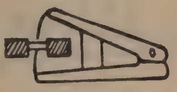

F

STRIP-IT TOOL (FIG. F)

Belden No. 8196—A precision tool, simple in design and foolproof in operation. Indispensable for electronic technicians, assemblers and electricians. Adjustment bar set with a touch of the finger. Engineered for thousands of operations with one set of blades. Can also be used to cut small size wires.
Net Each............**$19.40**

CB-AMATEUR RADIO COAXIAL CABLE

Individually packaged and fitted with PL-259 connectors on both ends, RG 58A/U (Models 9350 thru 9352), or 8/U (all others) cables for use with two way systems. Low loss foam; 50 ohms impedance. Outer diameter, .195" for RG 58A/U, and .405" for 8/U. All in black color.

Belden No.	Length	Net Each
9349	3′	**$ 7.90**
9350	15′	**8.95**
9347	20′	**7.95**
9352	50′	**13.50**
9354	50′	**25.35**
9355	75′	**34.95**
9356	100′	**43.20**

®TM: Beldfoil of Belden.

RETRACTILE CABLES AND CORDS (FIG. A)
MICROPHONE CABLES

No. 8409: Tinned copper, nylon insulated, neoprene jacket. **Nos. 9465, 9466 and 9467:** Same, except spiral tinned copper shield. **Nos. 8415, 8490 and 9415:** Five strands TCW, 16 strands TC, rubber insulated, paper tape, neoprene jacket. **Nos. 8499 and 9499:** Tinned cadmium bronze, rubber insulated, spiraled TC shield, cotton wrap, neoprene jacket. **No. 8605:** Tinned copper, polypropylene insulated, spiraled TC shield, gray PVC jacket. **All Others:** Five strands TCW, 16 strands TC, rubber insulated, double Beldfoil® aluminum-polyester shield with drain wire same as conductors, paper tape, neoprene jacket. **Conductor Color Coding: 1,** white; **2,** black; **3,** red; **4,** green; **5,** blue. Capacitance given is of shielded conductor.

Belden No.	Conductors	AWG and (Stranding)	Nominal			Length		Net Each per Standard Put-Up	
			O.D.	Coil O.D.	Cap. pF/Cord	Retr.	Ext.	1	15
9470	2 unshielded	33 (Tinsel)	.105″	½″	....	10½″	5′	**$ 4.00**	.....
9468	1 shld, 2 unshld	31 (Tinsel)	.150″	½″	900	20″	8½′	**11.95**	.....
9469	4 unshielded	31 (Tinsel)	.150″	½″	....	20″	8½′	**10.50**	.....
9466	1 shld, 2 unshld	28 (7 x 36)	.160″	⅝″	1000	11″	6′	**5.80**	.....
9465	1 shld, 4 unshld	28 (7 x 36)	.175″	1/16″	1230	15″	7½′	**7.30**	.....
9467	1 shld, 4 unshld	28 (7 x 36)	.175″	11/16″	1000	12″	6′	**6.85**	.....
8409	4 unshielded	28 (7 x 36)	.165″	9/16″	....	12″	6′	**5.05**	.....
8415	4 unshielded	23 (21 x 36)	.250″	⅞″	....	11½″	6′	**5.90**	**$ 5.70***
9415	4 unshielded	23 (21 x 36)	.250″	⅞″	....	30″	15′	**12.65**	**11.75**
9499	1 shielded	24 (45 x 40)	.170″	11/16″	910	24″	12′	**9.30**	**8.50†**
9471	1 shld, 2 unshld	23 (21 x 36)	.250″	⅞″	725	12″	5′	**4.88**	.....
9472	1 shld, 2 unshld	23 (21 x 36)	.250″	⅞″	950	18″	7½′	**6.20**	.....
8499	1 shielded	24 (45 x 40)	.170″	11/16″	285	7½″	4′	**4.26**	.....
8605	1 shielded	24 (19 x 36)	.160″	11/16″	680	20″	8½′	**6.50**	.....
8497	1 shielded,	23 (21 x 36)	.250″	⅞″	510	11½″	6′	**6.50**	**5.80***
9417	2 unshielded	23 (21 x 36)	.250″	⅞″	1200	30″	15′	**13.40**	**11.90**
8491	2 ind. shielded,	23 (21 x 36)	.275″	1 1/16″	510	12″	6′	**7.50**	.....
9416	2 unshielded	23 (21 x 36)	.275″	15/16″	1200	30″	15′	**17.85**	**16.55**
8490	5 unshielded	23 (21 x 36)	.265″	⅞″	....	11½″	6′	**6.50**	.....

*Standard Put-Up of 50. †Standard Put-Up of 10.

75 OHM VIDEO COAXIAL CABLES

Stranded tinned copper conductor, polyethylene insulation, Beldfoil shield, tinned copper serve shield, gray PVC jacket.

9447	1 coaxial	25 (7 x 33)	.242″	1⅛″	42	6″	2′	**$3.84**	.....
9448	1 coaxial	25 (7 x 33)	.242″	1⅛″	84	12″	4′	**5.05**	.....
9449	1 coaxial	25 (7 x 33)	.242″	1⅛″	168	24″	8′	**7.85**	.....

NEOPRENE POWER CONTROL CABLES

Bare copper, paper wrap, rubber insulation, cabled with fillers, paper tape wrap, black neoprene jacket. Straight portion 12″ each end (except 6″ on 8601, 8602, 8603). **Jacket:** .045″ thick; removed 1½″ each end. **Color Coding: 1,** white; **2,** black; **3,** green; **4,** red. U.L. Listed.

Belden No.	No. of Cond.	Type	AWG and (Stranding)	Nominal		Length		Net Each per Standard Put-Up	
				O.D.	Coil O.D.	Retr.	Ext.	1	15
8601	2	SVO	18 (41 x 34)	.270″	15/16″	12″	6′	**$ 4.93**	.....
9476	2	SVO	18 (41 x 34)	.270″	15/16″	24″	12′	**9.00**	**$ 7.90**
9477	2	SVO	18 (41 x 34)	.270″	15/16″	48″	25′	**14.30**	**12.75**
9478	3	SVO	18 (41 x 34)	.275″	15/16″	24″	12′	**11.50**	**10.15**
9479	3	SVO	18 (41 x 34)	.275″	15/16″	48″	25′	**19.85**	**18.70**
8602	3	SJO	18 (41 x 34)	.360″	1⅜″	12″	6′	**7.50**	.....
9480	3	SJO	18 (41 x 34)	.360″	1⅜″	24″	12′	**13.20**	.....
9481	3	SJO	18 (41 x 34)	.360″	1⅜″	48″	25′	**21.75**	.....
8603	3	SJO	16 (65 x 34)	.370″	1 7/16″	12″	6′	**7.55**	.....
9484	3	SJO	16 (65 x 34)	.370″	1 7/16″	24″	12′	**14.95**	.....
9485	3	SJO	16 (65 x 34)	.370″	1 7/16″	48″	25′	**25.40**	.....
9482	4	SJO	18 (41 x 34)	.385″	1 7/16″	24″	12′	**15.20**	.....
9483	4	SJO	18 (41 x 34)	.385″	1 7/16″	48″	25′	**25.40**	.....

Our Stocks are Complete and up to date.

Write for information on new or unlisted items.

CLOSED CIRCUIT TELEVISION CABLES

Belden No. 9254• (Fig. A)—13-conductor camera extension cable. Recommended for remote control, closed circuit and cue line applications. Has two 20 AWG (10 x 30) tinned copper, vinyl insulated, color coded conductors. Nine 22 AWG (7 x 30) tinned copper, vinyl insulated, 2 conductors cabled, Beldfoil® shield, 2 conductors cabled unshielded, 5 conductors unshielded. Two foam polypropylene insulated coaxial cables. Nominal impedance, 75 ohms, color coded. Tinned copper braid shield. Chrome vinyl jacket, .550″ nominal O.D. UL Listed, Style 2497.
100 ft., Net........**$192.70** **250, 500, 1000 or 1500 ft.,** Net per 1000 ft.*......**$1624.50**

Belden No. 9259 (Fig. B)—RG-59 type coax cable with stranded center conductor. Recommended for camera to recorder to monitor connections. Stranded center conductor adds the flexibility needed to resist severe twisting, bending and other stresses which occur in many CCTV applications. Has 22 AWG stranded bare copper conductor, cellular polyethylene insulation, bare copper braid shield, black vinyl jacket, 75 ohm, .242″ nominal O.D. UL Listed, Style 1354.
50 ft., Net **$18.15** **100 ft.,** Net **$30.80** **500 ft.,** Net **$103.30*** **1000 ft.,** Net **$170.25***

Belden No. 9260 (Fig. C)—6-conductor shielded remote control cable. Recommended for applications where remote switching of video camera function is required. Six 20 AWG (7 x 28) tinned copper conductors, vinyl insulated, black, white, red, green, orange, blue. Overall tinned copper braid shield. Overall gray vinyl jacket, .305″ nominal O.D. UL Listed, Style 2464.
50 ft., Net..**$42.15** **100 ft.,** Net..**$69.65** **500 ft.,** Net..**$214.20** **1000 ft.,** Net **$428.40**

Belden No. 9261 (Fig. D)—12-conductor shielded remote control cable. Recommended for applications where remote switching of video camera function is required. Has twelve 20 AWG (7 x 28) tinned copper conductors, vinyl insulated, color coded. Overall tinned copper braid shield. Overall gray vinyl jacket, .410″ nominal O.D. UL Listed, Style 2464.
50 ft., Net.. **$72.20** **100 ft.,** Net. **$115.15** **500 ft.,** Net..**$362.05** **1000 ft.,** Net..**$724.05**

Belden No. 9262 (Fig. E)—13-conductor remote control and video cable. Recommended for use in installations requiring external drive signals, tallies, intercom, switching and video operations. Has twelve 20 AWG (7 x 28) tinned copper conductors, vinyl insulated, color coded. One 75-ohm coax, 22 AWG stranded bare copper conductor, foam polyethylene insulated, bare copper braid shield, polyester tape wrapped. Overall tinned copper braid shield. Overall gray vinyl jacket, .460″ nominal O.D. UL Listed.
50 ft., Net. **$94.95** **100 ft.,** Net..**$153.50** **500 ft.,** Net..**$549.00** **1000 ft.,** Net..**$1098.00**

Belden No. 9265—Siamese type cable, RG59/U type and twisted pair, RG59/U has 1 conductor 22 AWG BC coax with cellular polyethylene insulation, bare copper shield. Nom. impedance, 75 ohms. Twisted pair is 2 conductor, 22 AWG TC with vinyl insulation, Beldfoil aluminum-polyester shield, black vinyl jacket. Nom. O.D., .242″ x .445″.
500 ft., Net......................**$174.60** **1000 ft.,** Net.....................**$349.20**

TV CAMERA CABLES

Belden No. 8286• (Fig. F)—28-conductor camera cable. Four 18 AWG (16 x 30) tinned copper, vinyl insulated, color coded, Beldfoil aluminum-polyester shield with stranded drain wire and polyester tape cover; 21 conductors of 22 AWG (7 x 30) tinned copper, vinyl insulated, cabled in groups of 7, color coded, one group with Beldfoil aluminum-polyester shield (95% coverage) with stranded drain wire and polyester tape cover; 3 coaxial cables, color coded, nominal impedance 75 ohms; tinned copper braid shield with 86% coverage; black Hypalon® jacket, .730″ O.D.
100′ Spool, Net..................**$360.45** **250′ Spool,** Net...............**$2832.00/1000′**
500′ Spool, Net...........**$2832.00/1000′** **1000′ Spool,** Net....................**$2832.00**

Belden No. 9253•—Recommended for transistorized TV cameras. UL listed. Similar to Fig. G except with shield. 28-conductor TV camera cable has four 18 AWG (16 x 30) tinned copper, vinyl insulated, color coded conductors, Beldfoil® aluminum-polyester shield around 4 conductors with stranded drain wire, polyester tape over this shielded group. 21–22 AWG (7 x 30) tinned copper, vinyl insulated, cabled in three groups of 7, color coded, one group of 7 has Beldfoil aluminum-polyester shield overall with a stranded drain wire, polyester tape over this shielded group. Three coaxial cables, nom. impedance 75 ohms. RG 59/U type with foam polypropylene insulation. Tinned copper braid shield, chrome vinyl jacket .810″ nom. O.D. U.L. Listed.
100 ft., Net...........**$413.90** **250, 500 or 1000 ft.,** Net per 1000 ft.*..........**$3514.50**

Belden No. 8282• (Fig. G)—13-conductor TV eye cable. Eight 22 AWG (7 x 30) tinned copper, vinyl insulated, color coded; one 22 AWG (7 x 30) polyethylene insulated; two 18 AWG (16 x 30) tinned copper conductors, vinyl insulated, black and red; one RG-58A/U 50-ohm coax cable, one 72-ohm coax, stranded conductor, polyester tape wrapped, chrome vinyl jacket .470″ nom. O.D.
100 ft., Net........**$159.25** **250, 500, 1000 or 1500 ft.,** Net per 1000 ft.*........**$1344.00**

Belden No. 9165 (Fig. E)—7-conductor ENG and CCTV cable. Three pairs of No. 22 (7 x 30) tinned copper conductors, vinyl insulated, color coded, individually Beldfoil shielded with drain wire. One 75-ohm coax, 22 AWG (7 x 30) stranded bare copper conductor, cellular polyethylene insulation, bare copper braid shield, black vinyl jacket. U.L. Listed Style 20006.
500′ Spool, Net.................**$310.05** **1000′ Spool,** Net...................**$620.10**

Belden No. 9166 (Fig. E)—Same as No. 9165, except coax has two bare copper shields.
500′ Spool, Net....**$772.50** **1000′ Spool,** Net..**$1543.50** **2000′ Spool,** Net...**$3087.00**

Belden No. 9170 (Fig. G)—Five pairs of No. 24 (7 x 32) tinned copper conductors, polypropylene insulated, color coded, individually Beldfoil shielded with drain wire. Two 75-ohm coaxial cables with No. 25 (7 x 33) conductor, cellular polyethylene insulation, tinned copper braid shield over each. Chrome vinyl jacket.
250′ Spool, Net....**$339.00** **500′ Spool,** Net....**$678.00** **1000′ Spool,** Net...**$1356.00**

Belden No. 9171 (Fig. G)—Two No. 16 (26 x 30) tinned copper conductors, vinyl insulated, color coded. Five pairs No. 22 (7 x 30) tinned copper, vinyl insulated, color coded. Two coax cables with No. 22 (7 x 30) bare copper conductors, cellular polyethylene dielectric, bare copper 95% braided shield, chrome PVC jacket.
250′ Spool, Net....**$326.25** **500′ Spool,** Net....**$652.50** **1000′ Spool,** Net...**$1305.00**

Belden No. 9180 (Fig. H)—One pair No. 26 (7 x 34) tinned copper conductors, Datalene insulated, color coded, Beldfoil aluminum/polyester shield, No. 26 (7 x 34) drain wire, chrome PVC jacket.
500′ Spool, Net.................**$68.65*** **1000′ Spool,** Net...................**$125.00***

Belden No. 9176—One No. 28 (7 x 36) conductor, vinyl insulated, tinned copper braid shield, yellow PVC jacket. One No. 24 (10 x 34) conductor, vinyl insulated, brown PVC jacket. Two coax cables with No. 28 (7 x 36) conductors, cellular polyethylene dielectric tinned copper braid shield over each, gray and blue PVC jackets. Overall gray PVC jacket. Nom. O.D., .245″. U.L. Listed Style 2668.
500′ Spool, Net.................**$342.70** **1000′ Spool,** Net...................**$685.35**

Belden No. 9175 (Fig. E)—Three No. 20 (26 x 34) conductors, vinyl insulated, color coded. Four coax cables with No. 24 (7 x 32) bare copper conductors, cellular polyethylene dielectric, bare copper braided shield over each coax. Overall gray PVC jacket. Nom. O.D., .410″. U.L. Listed Style 2502.
250′ Spool, Net....**$217.50** **500′ Spool,** Net....**$435.00** **1000′ Spool,** Net....**$870.00**

Belden No. 8286 (Fig. F)—Similar to No. 9253, except has black thermoplastic elastomer jacket.
100′ Spool, Net..................**$360.45** **250′ Spool,** Net...............**$2832.00/1000′**
500′ Spool, Net...........**$2832.00/1000′** **1000′ Spool,** Net....................**$2832.00**

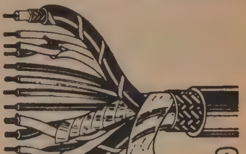
®TM: Beldfoil of Belden; Hypalon of DuPont. *One piece spools; length may vary +20% −0% from length shown. •Passes FR-1 vertical flame test.

PAIRED TELEPHONE CABLES

Tinned solid copper conductors, vinyl insulated, pairs twisted, silver gray vinyl jacket. U.L. Listed.

Belden Number	No. of Pairs	AWG	O.D., Ins.	Net Each, Spools of		
				100′	500′	1000′
9562	2	24	.199	$ 14.95	$ 51.35*	$102.65*
9566	6	24	.289	32.80	124.85*	205.80*
9570	10	24	.310	51.45	159.30	318.60
9585	25	24	.480	125.00	463.50	927.00

*ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE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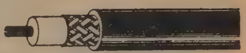
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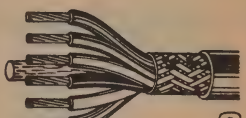
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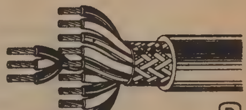
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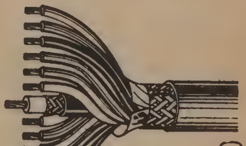
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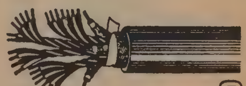
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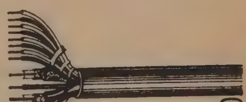
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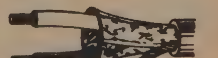
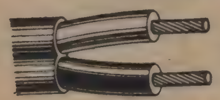

H

COOPER
INDUSTRIES

BELDEN Electronic Wire and Cable

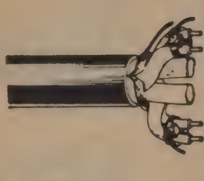
DUPLEX PRIMARY WIRE

Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.


A

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Color Code	Net Each, Spool of	
					100′	500′
8677	A	16 (19 x 29)	.146″ x .248″	Brn, Red	$ 28.85	$120.60
8675	A	14 (19 x 27)	.161″ x .278″	Brn, Red	36.80	138.40
8673	A	12 (19 x 25)	.186″ x .328″	Brn, Red	53.45	206.10
8678	A	10 (19 x 23)	.225″ x .400″	Brn, Red	75.55	307.90
9679	A	8 (19 x 21)	.317″ x .572″	Brn, Red	156.80	623.05

DATA, INSTRUMENTATION AND COMPUTER CABLES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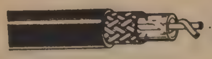
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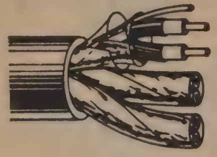

E

Belden No. 9555 (Fig. A)—75 ohm twin coaxial cable. Each with .023″ copper covered steel conductor and bare copper braided shield, coverage 95%. Black vinyl jacket .242″ x .505″ nom. O.D. U.L. Listed Style 80020.
100′ Spool, Net. **$53.60** **500′ Spool,** Net. **$168.75** **1000′ Spool,** Net. **$337.50**

Belden No. 9851 (Fig. C)—200 ohm video twinax. Two conductor, 29 AWG solid silver coated copper covered steel. Cellular flame retardant polyethylene insulation. Beldfoil® shield, overall. Chrome vinyl jacket. Nom. O.D., .245″. U.L. Listed, Style 2777.
100′ Spool, Net. . **$33.25** **500′ Spool,** Net . **$125.00** **1000′ Spool,** Net. **$237.60**

Belden No. 9269 (Fig. D)—IBM No. 323921. Type 62A/U. 22 AWG solid bare Copper-covered steel. Semi-solid polyethylene insulation. Bare copper shield. Black, non-contaminating vinyl jacket. Nom. O.D., .242″. U.L. Listed. Style 1478.
500′ Spool, Net. . **$90.30*** **1000′ Spool,** Net. **$148.80*** **2000′ Spool,** Net. **$297.60**

Belden No. 9268—Same as No. 9269, except for use outdoors. Nom. O.D. .260″.
500′ Spool, Net. **$125.00** **1000′ Spool,** Net. **$223.95*** **2000′ Spool,** Net. **$447.90**

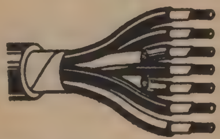
Belden No. 9862• (Fig.D)—IBM No. 5252750. Type 62A/U. 22 AWG solid bare Copper-covered steel. Semi-solid flame retardant polyethylene insulation. Bare copper shield. Black vinyl jacket. Nom. O.D., .260″. U.L. Listed, Style 1478.
500′ Spool, Net. **$117.95*** **1000′ Spool,** Net. **$194.40*** **2000′ Spool,** Net. **$388.80**

Belden No. 9641—Six pairs No. 26 (7 x 34) stranded tinned copper twisted as pairs, ten No. 26 (7 x 34) stranded tinned copper, one No. 24 (7 x 32) stranded tinned copper, vinyl insulated, 91% overall tinned copper braid, drain wire, gray vinyl jacket. U.L. Listed Style 2464.
100′ Spool, Net. **$114.95** **500′ Spool,** Net. **$381.00** **1000′ Spool,** Net. **$762.00**

Belden No. 9881—Seven conductors No. 26 (7 x 34) stranded tinned copper, one coaxial cable No. 22 solid center conductor, foam polyethylene dielectric, 93% coverage bare copper shield. Conductors cabled around coax, overall Mylar tape, black vinyl jacket. U.L. Listed Style 2704.
100′ Spool, Net. **$53.60** **500′ Spool,** Net. **$183.75** **1000′ Spool,** Net. **$367.50**

®TM: Beldfoil of Belden.

MULTIPLE UNPAIRED TYPE SO NEOPRENE CONTROL CABLES (FIG. F)


F

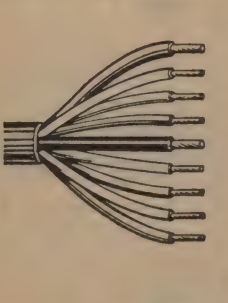
General purpose industrial and utility control applications, remote control of automatic electric equipment and motor control. Heavy duty neoprene jacket offers excellent resistance to oils, acids, oxidation, weathering, ozone abrasion and impact. Bare copper, 16 AWG (65 x 34), rubber insulated, conductors cabled with fillers, black neoprene jacket. Suggested Working Voltage: 600 V.
Color Coding available on request.

Beld. No.	*	Nom. O.D.	Net Each, Spool of		
			100′	500′	1000′
9420•	5	.520″	$116.05	$437.25	$874.50
9422•	7	.600″	126.00	593.25	1186.50
9424•	9	.720″	186.40	756.00	1510.50
9425•	12	.730″	251.50	1033.50	2065.50
9427•	16	.825″	315.30	1294.50	2587.50
9429•	20	.880″	388.00	1614.00	......

*No. of conductors. U.L. Listed.
•Passes FR-1 vertical flame test.

MULTIPLE UNPAIRED CONTROL AND AUDIO CABLES

Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket. Suggested Working Voltage: 22 AWG, 200 V; 18 AWG, 400 V; 16 AWG and 14 AWG, 600 V. **Color Coding available on request.** Pass FR-1 vertical flame test.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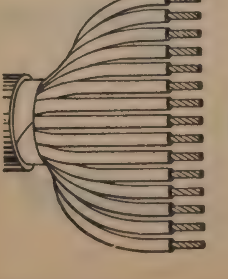
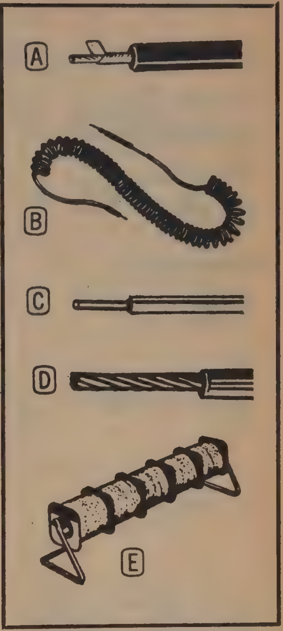

H

Belden No.	Fig.	No. of Cond.	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of					
					15′	25′	100′	250′	500′	1000′
8444*	G	4	22 (7 x 30)	.182″	....	$5.05	$15.40	$28.85	$ 57.70*	$115.40*
8445*	G	5	22 (7 x 30)	.194″	....	6.05	18.15	34.40	68.80*	125.00*
9430*	G	7	22 (7 x 30)	.214″	....	....	.....	.....	107.85*	177.75*
9421*	G	8	22 (7 x 30)	.229″	....	....	34.60	.....	125.00*	206.55*
9423*	G	9	22 (7 x 30)	.244″	....	....	38.35	.....	125.05*	250.05*
8456*	G	10	22 (7 x 30)	.264″	....	....	43.15	.....	145.50*	291.00*
8457*	G	12	22 (7 x 30)	.264″	....	....	48.45	.....	165.40*	330.75*
8458*	G	15	22 (7 x 30)	.330″	....	....	76.35	.....	254.50	508.95
9431*	G	20	22 (7 x 30)	.345″	....	....	96.30	.....	328.80	657.60
8459*	G	25	22 (7 x 30)	.370″	....	....	119.25	.....	411.75	823.50
9432*	G	30	22 (7 x 30)	.400″	....	....	125.00	.....	472.50	945.00
9433*	G	40	22 (7 x 30)	.455″	....	....	175.10	.....	625.50	1251.00
9434*	G	50	22 (7 x 30)	.500″	....	....	.....	.....	783.00	1566.00
9444*	G	4	20 (10 x 30)	.217″	....	....	19.05	.....	75.55*	125.00*
9445*	G	5	20 (10 x 30)	.239″	....	....	23.30	.....	91.55*	150.90*
9439*	G	7	20 (10 x 30)	.260″	....	....	38.25	.....	127.20*	254.40*
9455*	G	9	20 (10 x 30)	.317″	....	....	50.55	.....	171.00	342.00
9457*	G	12	20 (10 x 30)	.338″	....	....	62.25	.....	227.70	455.40
9458*	G	15	20 (10 x 30)	.389″	....	....	81.45	.....	303.25	606.45
8446*	G	6	4-22 (7 x 30) 2-18 (16 x 30)	.236″	$7.35	....	32.25	63.80	125.00*	210.15*
8447*	G	7	5-22 (7 x 30) 2-18 (16 x 30)	.254″	....	....	38.25	74.45	125.00*	245.25*
8448*	G	8	6-22 (7 x 30) 2-18 (16 x 30)	.258″	8.40	....	40.50	80.85	133.20*	266.40*
9405*	G	8	6-18 (16 x 30) 2-16 (26 x 30)	.345″	....	....	.....	125.00	222.10	444.15
8449*	G	9	7-22 (7 x 30) 2-18 (16 x 30)	.269″	8.85	....	42.80	87.45	144.15*	288.30*
8465*	G	5	18 (16 x 30)	.286″	....	....	34.50	71.55	125.00*	235.65*
8467*	G	7	18 (16 x 30)	.324″	....	....	57.10	117.25	193.20	386.40
8469*	G	9	18 (16 x 30)	.379″	....	....	73.20	128.25	256.45	512.85
8466*	G	12	18 (16 x 30)	.412″	....	....	100.75	194.65	389.25	778.50
8468*	G	15	18 (16 x 30)	.505″	....	....	125.00	.....	518.25	1036.50
8619*	G	19	18 (16 x 30)	.505″	....	....	161.45	.....	613.50	1227.00
9626	H	25	18 (16 x 30)	.600″	....	....	208.35	.....	790.50	1579.50
8620	H	4	16 (19 x 29)	.375″	....	....	54.00	.....	190.00	379.95
9620	H	5	16 (19 x 29)	.405″	....	....	70.90	.....	236.05	472.05
8621	H	7	16 (19 x 29)	.455″	....	....	99.50	.....	354.45	708.90
9721	H	8	16 (19 x 29)	.495″	....	....	109.15	.....	396.75	793.50
9621	H	9	16 (19 x 29)	.500″	....	....	120.80	.....	438.75	877.50
8622	H	12	16 (19 x 29)	.610″	....	....	155.70	.....	564.75	1129.50
8623	H	15	16 (19 x 29)	.670″	....	....	217.55	.....	864.00	1726.50
8624	H	19	16 (19 x 29)	.700″	....	....	267.00	.....	1045.50	2091.00
9622	H	25	16 (19 x 29)	.850″	....	....	305.75	.....	1201.50	2403.00
8627	H	4	14 (19 x 27)	.495″	....	....	96.65	.....	332.25	664.50
9623	H	5	14 (19 x 27)	.545″	....	....	116.95	.....	420.75	841.50
8628	H	7	14 (19 x 27)	.615″	....	....	156.65	.....	605.25	1210.50
8629	H	12	14 (19 x 27)	.800″	....	....	263.20	.....	1060.50	2119.50

*U.L. Listed. ***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE**

BELDEN Electronic Wire and Cable



TEST PROD WIRE (FIG. A)

Extremely limp and flexible wire has high dielectric strength. Tinned copper 18 AWG, 65 x 36 stranded, separator, rubber insulated, specify red or black. No. 8897 made per MIL-W-13169. Miniature type 8890, 24 AWG, 45 x 40 stranded tinned copper, cotton separator, rubber insulated, specify red or black.

Belden No.	Nom. O.D.	Breakdown Volts	Suggested Work V‡	Net Each, Spool of 10′	14′*	25′	100′	500′	1000′
8899†	.144″	20,000	5,000	$3.40	$3.82	$5.40	$17.40	$63.25*	$125.00*
9899	.144″	20,000	5,000	....	....	....	14.05	57.55*	115.05*
8897	.144″	20,000	5,000	....	....	....	.....	72.00*	......
8898	.230″	29,000	10,000	4.97	....	8.80	23.15	95.85	......
8890	.066″	10,000	1,000	....	....	4.48	11.05	46.80	......

*7 ft. of red; 7 ft. of black. †25′; 100′ and 500′ also available in blue, white, gray, green or yellow. ‡For intermittent duty only.

COILED TEST PROD WIRE (FIG. B)

Coiled test prod wire, prevents that cluttered up work bench. Retracted length 8 inches, stretched length, 5 feet. Tinned copper wire, rubber insulated, red and black. Complete with prods. AWG and stranding, 20 (42 x 36). Nom. O.D., .173″. Breakdown, 20,000 V; suggested working, 5,000 V.

Belden No. 8878—One red and one black. Net per Pair	$14.60
Belden No. 8879—Same as above, less prods. Net per Pair	5.65

UL HOOK-UP AND LEAD WIRES

UL STYLE 1007, CSA TYPE TR-64, RATED 300 V, 80° C

Tinned copper, vinyl insulation. Rated to 600 V peak for electronic circuits.

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Stock Colors†	Net Each, Spool of 100′	500′	1000′	5000′#
9930	D	30 (7 x 38)	.044″	1–5, 7–10, 13	$ 4.95	.....	$33.85	.....
9928	D	28 (7 x 36)	.047″	1–5, 7–10, 13	4.68	.....	31.50	.....
9926	D	26 (7 x 34)	.051″	1–5, 7–10, 13	4.95	.....	32.95	.....
9923	D	24 (7 x 32)	.056″	1–5, 7–10, 13	5.15	.....	34.25	.....
9921	D	22 (7 x 30)	.062″	1–5, 7–10, 13	5.85	.....	40.80	.....
9919	D	20 (7 x 28)	.069″	1–5, 7–10, 13	7.05	.....	48.80	.....
9918•	D	18 (16 x 30)	.079″	1–5, 7–10, 13	7.65	.....	55.55	$51.55
9916	D	16 (26 x 30)	.092″	1–5, 7–10, 13	10.75	.....	83.55	.....

UL STYLE 1015, CSA TYPE TEW, RATED 600 V, 105° C

Tinned copper, vinyl insulation. Rated to 2500 V peak for electronic circuits.

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Stock Colors†	Net Each, Spool of 100′	500′	1000′	5000′#
9924•	D	24 (7 x 32)	.088″	1–5, 9, 10, 13	$ 5.95	.....	$42.95	.....
8920•	D	22 (7 x 30)	.093″	1–5, 9, 10, 13	6.40	.....	46.45	$36.80
8919•	D	20 (10 x 30)	.100″	1–5, 9, 10, 13	7.90	.....	58.45	47.70♦
8918•	D	18 (16 x 30)	.110″	1–5, 9, 10, 13, 189	9.75	.....	69.75	63.35♦
8917•	D	16 (26 x 30)	.123″	1–5, 9, 10, 13, 189	12.05	$50.90	101.75	84.30♦
8916•	D	14 (41 x 30)	.138″	1–5, 9, 10, 13, 189	17.20	71.90	.....	.....
9912•	D	12 (65 x 30)	.158″	1–5, 9, 10, 13	28.40	50.15▲	.....	.....
9910•	D	10 (65 x 28)	.183″	2, 4, 9, 10	39.95	70.45▲	.....	.....
9908•	D	8 (84 x 27)	.250″	2, 4, 9, 10	69.25	123.95▲	.....	.....

UL STYLE 1061, CSA TYPE SR-PVC, RATED 300 V, 80° C

Tinned copper, semi-rigid vinyl insulation. Suitable for wire-wrap applications.

Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Stock Colors†	Net Each, Spool of 100′	500′	1000′	5000′#
9978•	C	30 (Solid)	.030″	1–5, 7–10, 13	$4.64	.....	$31.30	.....
9987•	D	30 (7 x 38)	.032″	1–5, 7–10, 13	4.95	.....	33.85	.....
9977•	C	28 (Solid)	.033″	1–5, 7–10, 13	3.71	.....	25.15	.....
9986•	D	28 (7 x 36)	.035″	1–5, 7–10, 13	4.68	.....	31.50	.....
9976•	C	26 (Solid)	.036″	1–5, 7–10, 13	3.22	.....	21.50	.....
9985•	D	26 (7 x 34)	.039″	1–5, 7–10, 13	4.95	.....	32.95	.....
9975•	C	24 (Solid)	.040″	1–5, 7–10, 13	3.42	.....	22.75	.....
9984•	D	24 (7 x 32)	.044″	1–5, 7–10, 13	5.15	.....	34.05	.....
9983•	D	22 (7 x 30)	.050″	1–5, 7–10, 13	5.70	.....	36.80	.....
9982•	D	20 (7 x 28)	.057″	1–5, 7–10, 13	7.05	.....	44.60	.....
9981•	D	18 (19 x 30)	.066″	1–5, 7–10, 13	7.45	.....	56.25	.....
9980•	D	16 (19 x 28)	.078″	1–5, 7–10, 13	9.60	.....	74.45	.....

†Stock Colors: See table at right. #Per 1000′. ♦4000′ spool. •Passes FR-1 vertical flame test. ▲250′.

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.**

HOOK-UP WIRE KITS (FIG. E)

Assortments of hook-up wire colors in portable metal dispenser rack. One spool of each color is supplied. Pass the FR-1 vertical flame test.

Beld. No.	Wire Type and No.	Stock Colors†	Net Kit
8816	18 (Strnd.) 8522-25*	1-6, 9, 10	29.80
8824	20 (Strnd.) 8523-25*	1-6, 9, 10	27.30
8825	20 (Strnd.) 8502-100‡	2, 4, 5, 9, 10	39.15
9531	22 (Strnd.) 8524-100‡	2, 5, 6, 9, 10	31.30

*25 ft. spools. ‡100 ft. spools.

†STOCK COLORS

Code No.	Color
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Light blue
7	Violet (purple)
8	Gray (slate)
9	White
10	Black
13	Dark blue
189	Green/Yellow

WE CARRY MOST MAJOR BRANDS. IF YOU CAN'T FIND WHAT

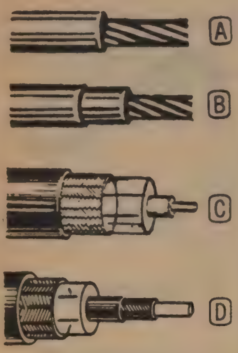
YOU WANT, CALL OR WRITE US FOR INFORMATION.

MIL SPEC HOOK-UP WIRE TYPE

MIL-W-16878 TYPE B VINYL (FIG. A)

Tinned copper, vinyl insulated for general purpose wiring with high resistance to moisture and solvents. Rated 600 VDC at 105° C. Pass the FR-1 vertical flame test.

Belden No.	Type Desig.	AWG and (Stranding)	Nom. O.D.	Stock Colors†	Net Each, Spool of			
					Solid Colors		Striped Colors	
					100′	1000′	100′	1000′
8597	B-28	28 (7 × 36)	.035″	1-10	$5.75	$37.70	....	....
8505	B-26	26 (7 × 34)	.039″	1-10, 14-22	5.70	41.15	....	....
8504	B-24	24 (7 × 32)	.044″	1-10, 14-22	5.90	40.05	....	....
8503	B-22	22 (7 × 30)	.050″	1-10, 14-22	6.40	41.50	....	....
8502	B-20	20 (7 × 28)	.058″	1-10, 14-22	7.85	51.90	....	....
8501	B-18	18 (7 × 26)	.068″	1-10, 14-22	8.40	65.55	....	....
8500	B-16	16 (19 × 29)	.077″	1-10, 14-22	10.65	86.30	....	....



DC HI-VOLTAGE CABLE

Belden No. 8870 (Fig. C)—Solid copper covered steel, 22 AWG; conductive polyethylene with Koroa-Guard™ polyethyene insulation; tinned copper braid equipotential sheath; black polyethylene jacket. Nom. O.D., .440″. Rated 160 kW breakdown, 80,000 V working.

100′ Spool, Net................	$125.00
250′ Spool, Net................	305.10

Belden NO. 8871 (Fig. D)—Tinned Copper braid (CMA equiv. to 16 AWG) over solid polyethylene rod, black conductive polyethylene with Korona-Guard, clear polypropylene insulation, tinned copper braid, black polyethylene jacket. Nom. O.D., .830″. Rated 400 kV breakdown, 200 kV working.

25′ Spool, Net................	$ 137.85
100′ Spool, Net................	640.45
250′ Spool, Net................	1375.50

MIL-W-76 TYPE MW VINYL (FIG. A)

Tinned copper conductor, vinyl insulated, medium wall. Rated 1000 V at 80° C. Stock Colors†: 25′, colors 1-13; all others, 1-22 except as noted. Pass the FR-1 vertical flame test.

Belden No.	MIL-W-76 Type Designation	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of				
				Solid Colors			Stripped Colors	
				25′	100′	1000′	100′	1000′
8538	MW-C 24(1)U	24 (Solid)	.054″	....	$5.35	$29.50	....	....
8525	MW-C 24(7)U	24 (7 × 32)	.058″	....	5.65	37.15	5.80	38.95
8530§	MW-C 22(1)U	22 (Solid)	.059″	$2.77	5.35	33.85	....	....
8524§	MW-C 22(7)U	22 (7 × 30)	.064″	2.88	6.30	43.50	6.45	45.35
8529	MW-C 20(1)U	20 (Solid)	.066″	2.95	6.35	42.45	....	....
8523§	MW-C 20(7)U	20 (10 × 30)	.070″	3.40	7.35	49.50	7.55	51.35
8522§	MW-C 18(16)U	18 (16 × 30)	.080″	3.71	8.70	65.20	8.85	67.00
8521	MW-C 16(19)U	16 (26 × 30)	.098″	....	12.30	93.55	12.50	95.40
8520	MW-C 14(19)U	14 (41 × 30)	.111″	....	17.30	125.00	17.50	125.00
8527*	MW-C 12(19)U	12 (65 × 30)	.128″	....	26.15	173.25	....	....

Stock Colors†: *1-10 only; ‡1-13 only; §1-30.

MIL-W-16878 TEFLON* HOOK-UP WIRE (FIG. A)

Concentrically stranded silver coated copper conductor insulated with extruded TFE Teflon. Pass FR-1 vertical flame test. Colors 1 thru 10. ▲U.L. Listed

*Registered DuPont TM.

TYPE EE, 1000 V, 200° C

Belden No.	Type Desig.	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of*		
				100′	500′	1000′
83023▲	EE-24	24 (19 × 36)	.054″	$16.20	$125.00◆	$125.00
83025▲	EE-22	22 (7 × 30)	.060″	15.60	125.00◆	125.00
83026▲	EE-22	22 (19 × 34)	.060″	18.20	136.80◆	136.80
83027▲	EE-20	20 (19 × 32)	.068″	22.05	165.00◆	165.00
83028▲	EE-20	20 (7 × 28)	.068″	19.85	148.50◆	148.50
83029▲	EE-18	18 (19 × 30)	.079″	29.15	217.95◆	217.95
83030▲	EE-16	16 (19 × 29)	.086″	35.30	264.75◆	264.75

TYPE ET, 250 V, 200° C, MINIATURE

83041▲	ET-32	32 (7 × 40)	.021″	$11.30	....	$102.65
83043▲	ET-30	30 (7 × 38)	.024″	12.30	....	111.95
83045▲	ET-28	28 (7 × 36)	.027″	12.75	....	116.05
83046▲	ET-26	26 (7 × 34)	.031″	13.85	....	125.00
83047▲	ET-26	26 (7 × 32)	.036″	15.40	....	125.00
83048▲	ET-24	24 (19 × 36)	.037″	19.15	....	143.50
83049▲	ET-22	22 (7 × 30)	.042″	12.55	....	113.75
83050▲	ET-22	22 (19 × 34)	.042″	15.65	....	125.00

*Spools may contain more than one piece, min. lgth. of any one piece is 25 ft.: 500′ and 1000′ lgths. may vary ± 10%; 100′ lgths. exact. ▲U.L. Listed. ◆Per 1000 Ft.

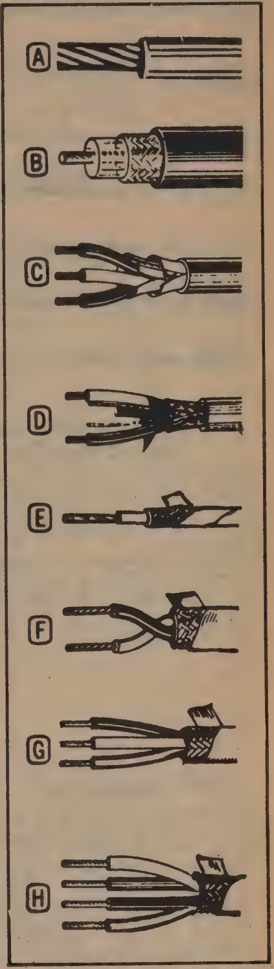
†STOCK COLORS

Specify color when ordering. First color in stripe combination is body color; second and third are stripes.

Code No.	Color Comb.	Code No.	Color Comb.	Code No.	Color Comb.
1	Brown	11	Tan	21	Wht/Gray
2	Red	12	Pink	22	Wht/Violet
3	Orange	13	Dark Blue	23	Wht/Blk/Red
4	Yellow	14	Wht/Blk	24	Wht/Blk/Grn
5	Green	15	Wht/Red	25	Wht/Blk/Yel
6	Light Blue	16	Wht/Grn	26	Wht/Blk/Blue
7	Violet (purple)	17	Wht/Yel	27	Wht/Blk/Brn
8	Gray (slate)	18	Wht/Blue	28	Wht/Blk/Orng
9	White	19	Wht/Brn	29	Wht/Blk/Gray
10	Black	20	Wht/Orng	30	Wht/Blk/Violet

TEFLON HIGH TEMPERATURE WIRE AND CABLE

Belden Teflon® wire products are particularly recommended for miniature cable applications. Teflon is especially suitable for internal wiring soldering applications where insulation melt back is a specific problem. Belden Teflon wiring products are outstanding in their resistance to oil, oxidation, heat, sunlight, flame, and their ability to remain flexible at low temperatures. All have excellent resistance to ozone, water, alcohol, gasoline, acids, alkalis, aromatic hydrocarbons and solvents.



MIL-W-16878, TYPE E TEFLON HOOK-UP WIRE (FIG. A)

Concentrically stranded, silver-coated copper conductor with extruded TFE Teflon insulation rated 600 volts, 200° C. Pass the FR-1 vertical flame test. U.L. Listed.

Belden No.	Type Desig.	AWG (Stranding)	Nom. O.D.	Ins. Thick-ness	Net Each, Spool of Solid Colors‡ 100′*	 500′*	 1000′*
83000	E-30	30 (7 × 38)	.033″	.010″	$11.55	$105.10▲	$105.10
83001	E-28	28 (7 × 36)	.036″	.010″	9.40	85.00▲	85.00
83002	E-26	26 (7 × 34)	.039″	.010″	10.50	94.75▲	94.75
83003	E-24	24 (19 × 36)	.044″	.010″	13.50	122.60▲	122.60
83004	E-24	24 (7 × 32)	.044″	.010″	11.55	104.65▲	104.65
83005	E-22	22 (7 × 30)	.050″	.010″	13.85	125.00▲	125.00
83006	E-22	22 (19 × 34)	.050″	.010″	15.65	125.00▲	125.00
83007	E-20	20 (19 × 32)	.058″	.010″	19.40	145.20▲	145.20
83008	E-20	20 (7 × 28)	.058″	.010″	17.65	132.00▲	132.00
83009	E-18	18 (19 × 30)	.069″	.010″	25.15	188.40▲	188.40
83010	E-16	16 (19 × 29)	.080″	.010″	30.70	229.45▲	229.45

MIL-W-16878, TYPES EE AND ET TEFLON HOOK-UP WIRE (FIG. A)

Same as above except Type EE rated 1000 V, 200° C; Type ET rated 250 V, 200° C. Specifications and pricing on request.

TEFLON-INSULATED RG/U TRANSMISSION LINE CABLES (FIG. B)

Meet MIL-C-copper 17D specifications. Silver-coated copper covered steel conductors with TFE Teflon insulation and silver-coated shields. Pass the FR-1 vertical flame test.

Belden No.	No. RG-	AWG and (Stranding)	No. Shields	Jack-et§	Nom. O.D.	Nom. Imp. Ohms	Net Each, Spool of 100′*	 500′*	 1000′*
83241	141A/U	18 (Solid)	1	BF	.190″	50	$141.00	$1283.00▲	$1283.00
83242	142B/U	18 (Solid)	2	TBF	.195″	50	164.25	1493.00▲	1493.00
83265	178B/U	30 (7 × 38)	1	TBF	.070″	50	48.95	366.75▲	366.75
83264	179B/U	30 (7 × 38)	1	TBF	.100″	75	61.00	457.50▲	457.50
83266	180B/U	30 (7 × 38)	1	TBF	.140″	95	113.95	854.00▲	854.00
83267	187A/U	30 (7 × 38)	1	WTT	.105″		81.35	609.00▲	609.00
83269	188A/U	26 (7 × .0067)	1	WTT	.102″		80.45	603.00▲	603.00
83270	196A/U	30 (7 × 38)	1	WTT	.076″		59.05	442.50▲	442.50
83282	303/U	18 (Solid)	1	TBF	.170″		125.00	1115.00▲	1115.00
83284	316/U	26 (7 × .0067)	1	TBF	.098″	50	65.15	487.95▲	487.95

FEP TEFLON-INSULATED SPECIAL INSTRUMENTATION CABLES

Noise reducing tape applied over insulated conductors minimizes generated noise due to cable flexing. Shield coverage, 100%. **Operating Temperature:**—70° C to + 150° C. **Jacket Working Voltage:** 1000 VDC, shield to ground. **Nos. 83394, 83395 and 83396:** Tinned copper, insulated with FEP Teflon, conductors cabled, noise reducing tape, 22 AWG (7 × 30) nickel coated copper drain wire, special Beldfoil® shield, red silicon rubber jacket. **No. 83393:** Same except 20 AWG (7 × 28) nickel coated copper drain wire and yellow silicone rubber jacket.

Belden No.	Fig.	No. of Cond.	AWG and (Stranding)	Thickness Insu-lation	 Jack-et	Nom. O.D.	Conductor Color Coding	Net Each, Spool of 25′	 100′	 500′
83394●	C	2	22 (7 × 30)	.015″	.030″	.204″	Blk, wht	$21.85	$82.85	$680.00*▲
83395●	C	3	22 (7 × 30)	.015″	.030″	.213″	Blk, wht, red	27.50	102.75	825.00▲
83396●	C	4	22 (7 × 30)	.015″	.030″	.222″	Blk, wht, red, grn	31.25	119.60	954.00▲
83393	D	2	20 (7 × 28)	.020″	.030″	.245″	Blk, red	30.25	118.95	947.00*▲

*Spools may contain more than one piece, minimum length of any one piece is 25 ft.; 500′ and 1000′ lengths may vary ± 10%, all other lengths are exact. †Specify brown, red, orange, yellow, green, light blue, violet (purple), gray (slate), white, or black. ‡Write for information on color striping (1, 2 or 3 stripes) available at price shown. §BF indicates brown fiberglass; TBF, tinted brown FEP Teflon; WTT, white Teflon tape. #Manufactured to current Government specifications and subsequent revisions. ●Pass the FR-1 vertical flame test. ▲Per 1000 ft. ***Also available in UNREEL package at same price.**

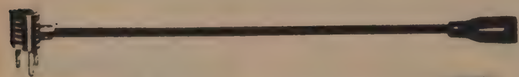
MIL-W-16878, TYPE E SHIELDED TEFLON CABLES

Feature stranded silver-coated copper conductors, MIL-W-16878, Type E extruded TFE Teflon insulation, color-coded, cabled, braided silver-plated copper shield, and white TFE Teflon tape wrapped jacket. Temperature rating, – 65° C to + 200° C. Shield coverage, 90%. Suggested working voltage, 600 volts rms. Choice of 1-, 2-, 3 or 4-conductor types in 100, 500 or 1000 ft. spools.

Belden No.	Fig.	No. of Cond.	AWG and (Stranding)	Thickness Insu-lation	 Jack-et	Nom. O.D.	Conductor Color Coding	Net Each, Spool of 100′*	 500′*	 1000′*
83301	E	1	30 (7 × 38)	.010″	.010″	.070″	Wht	$ 64.25	$481.15▲	$481.15
83302	E	1	28 (7 × 36)	.010″	.010″	.073″	Wht	64.70	484.50▲	484.50
83303	E	1	26 (7 × 34)	.010″	.010″	.077″	Wht	55.25	413.65▲	413.65
83304	E	1	24 (19 × 36)	.010″	.010″	.082″	Wht	66.90	502.00▲	502.00
83305	E	1	22 (19 × 34)	.010″	.010″	.089″	Wht	69.55	521.00▲	521.00
83306	E	1	20 (19 × 32)	.010″	.010″	.100″	Wht	85.35	640.00▲	640.00
83307	E	1	18 (19 × 30)	.010″	.010″	.113″	Wht	93.95	704.00▲	704.00
83308	E	1	16 (19 × 29)	.011″	.010″	.121″	Wht	111.30	834.00▲	834.00
83315	F	2	30 (7 × 38)	.010″	.010″	.106″	Wht, blk	95.55	717.00▲	717.00
83316	F	2	28 (7 × 36)	.010″	.010″	.112″	Wht, blk	103.20	773.00▲	773.00
83317	F	2	26 (7 × 34)	.010″	.010″	.120″	Wht, blk	86.20	646.00▲	646.00
83318	F	2	24 (19 × 36)	.010″	.010″	.132″	Wht, blk	102.65	770.00▲	770.00
83319	F	2	22 (19 × 34)	.010″	.010″	.144″	Wht, blk	121.15	908.00▲	908.00
83320	F	2	20 (19 × 32)	.010″	.010″	.162″	Wht, blk	125.00	1080.00▲	1080.00
83321	F	2	18 (19 × 30)	.010″	.010″	.182″	Wht, blk	137.50	1250.00▲	1250.00
83322	F	2	16 (19 × 29)	.011″	.010″	.200″	Wht, blk	166.35	1512.00▲	1512.00
83330	G	3	30 (7 × 38)	.010″	.010″	.111″	Wht, blk, red	115.70	867.00▲	867.00
83331	G	3	28 (7 × 36)	.010″	.010″	.117″	Wht, blk, red	122.15	915.00▲	915.00
83332	G	3	26 (7 × 34)	.010″	.010″	.126″	Wht, blk, red	108.10	810.00▲	810.00
83333	G	3	24 (19 × 36)	.010″	.010″	.136″	Wht, blk, red	125.00	959.00▲	959.00
83334	G	3	22 (19 × 34)	.010″	.010″	.150″	Wht, blk, red	126.30	1149.00▲	1149.00
83335	G	3	20 (19 × 32)	.010″	.010″	.167″	Wht, blk, red	146.40	1331.00▲	1331.00
83336	G	3	18 (19 × 30)	.010″	.010″	.193″	Wht, blk, red	177.40	1613.00▲	1613.00
83337	G	3	16 (19 × 29)	.011″	.010″	.214″	Wht, blk, red	216.00	1965.00▲	1965.00
83345	H	4	30 (7 × 38)	.010″	.010″	.119″	Wht, blk, red, grn	125.00	1062.00▲	1062.00
83346	H	4	28 (7 × 36)	.010″	.010″	.126″	Wht, blk, red, grn	125.00	1083.00▲	1083.00
83347	H	4	26 (7 × 34)	.010″	.010″	.135″	Wht, blk, red, grn	125.00	947.00▲	947.00
83348	H	4	24 (19 × 36)	.010″	.010″	.148″	Wht, blk, red, grn	134.65	1223.00▲	1223.00
83349	H	4	22 (19 × 34)	.010″	.010″	.164″	Wht, blk, red, grn	152.70	1389.00▲	1389.00
83350	H	4	20 (19 × 32)	.010″	.010″	.181″	Wht, blk, red, grn	178.50	1628.00▲	1628.00
83351	H	4	18 (19 × 30)	.010″	.010″	.204″	Wht, blk, red, grn	219.00	1995.00▲	1995.00
83352	H	4	16 (19 × 29)	.011″	.010″	.234″	Wht, blk, red, grn	276.00	2513.00▲	2513.00

*Spools may contain more than one piece, minimum length of any one piece is 25 ft.; 500′ and 1000′ lengths may vary ± 10%, but 100′ length is exact. All parts listed in above table pass the FR-1 vertical flame test. ®TM: Teflon of DuPont; Copperweld of Copperweld Steel Co.; Beldfoil of Belden. ▲Per 1000 ft.

BELDEN Special Purpose Wire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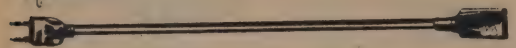
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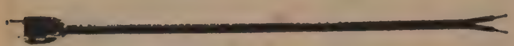
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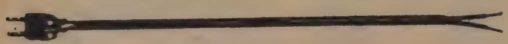
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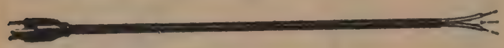
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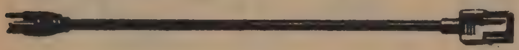
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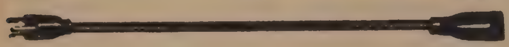
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EXTENSION CORD SETS

THREE-CONDUCTOR ADD-A-LINE (FIG. A)

Type SJT vinyl cordage 8-ft. and 15-ft. black extension cords have added convenience of an outlet in the adapter plug so you can add a line. Molded vinyl grounding connector, PH-108. Vinyl adapter plug, PH-267. Nominal O.D., .328". Blue Flag label. Certified to CSA Standards.

Belden Number	Length, Feet	AWG (Strands)	Rating	Net Each
17462S	8	18 (16 x 30)	1250 W, 10A–125V	$4.84
17463S	15	18 (16 x 30)	1250 W, 10A–125V	6.55

TWO-CONDUCTOR, SINGLE CONNECTOR (FIG. C)

Unbreakable, molded vinyl, cord-holder plug; unbreakable molded vinyl connector unless otherwise noted. Two-conductor rubber cordage. Blue Flag label.

Belden Number	Length, Ft.	AWG (Strands)	Cord-age	Color	Net Each
17259S‡	9	18 (41 x 34)	SV	Gray	$3.65
17870S‡	8	16 (65 x 34)	HPN	Black	2.65
17361S‡	10	16 (26 x 30)	SJ	Black	4.04

*Has molded vinyl connector with dummy center contact. ‡Has molded vinyl female connector for blade prongs.

POWER SUPPLY CORDS

PARALLEL LAMP CORDS (FIG. D)

Unbreakable molded vinyl plug on parallel lamp cord; two conductors, AWG stranding 18 (41 x 34); conductors split 1" and stripped and twisted ⅝". Tan Flag label.

Belden Number	Length, Feet	Cord Type	Specify Color	Net Each
17106S	6	SPT-1 vinyl	Brown, gray, ivory	$1.12
17109S	9	SPT-1 vinyl	Brown, white	1.40

SVT, SV, SJ, SVO TWO-CONDUCTOR CORDS (FIG. E)

Power supply type for mixers, tools, etc. Unbreakable, molded vinyl, cord-holder plug; two-conductor cord; outer jacket stripped 1½"; conductors stripped and twisted ⅝". Tan Flag label.

Belden Number	Lgth., Ft.	AWG (Strands)	Type Cord	Color	Net Each
17205S	6	18 (41 x 34)	SVT vinyl	Gray	$1.46
17308S	8	18 (16 x 30)	SJ rubber	Black	2.50
17328S	8	16 (26 x 30)	SJ rubber	Black	2.97

*Coiled; conductors stripped ½" and tinned.

THREE-CONDUCTOR CORDS (FIG. F)

Heavy-duty for tools and appliances requiring grounding. Withstands crushing, twisting and pulling. Unbreakable, molded, vinyl grounding plug; outer jacket stripped 2"; conductors stripped and twisted ⅝". Tan Flag label.

Belden Number	Lgth., Ft.	AWG (Strands)	Type Cord	Color	Net Each
17236S†	6	18 (41 x 34)	SV rubber	Black	$2.60
17237S†	6	18 (41 x 34)	SVT vinyl	Gray	1.83
17238S†	8	18 (41 x 34)	SV rubber	Black	2.97
17239S†	8	18 (41 x 34)	SVT vinyl	Gray	2.09
17276C†	20	16 (26 x 30)	SJT vinyl	Gray	5.20
17405S	6	18 (16 x 30)	SJT vinyl	Gray	1.99
17406S	6	18 (16 x 30)	SJ rubber	Black	2.92
17407S	8	18 (16 x 30)	SJT vinyl	Gray	2.29
17408S	8	18 (16 x 30)	SJ rubber	Black	3.21
17409B	8	18 (16 x 30)	SJO neoprene	Black	3.06
17412S	12	18 (16 x 30)	SJ rubber	Black	4.29
17419S	9	16 (26 x 30)	SJ rubber	Black	4.17
17422S	12	16 (26 x 30)	SJ rubber	Black	5.22
17425S	15	16 (26 x 30)	SJ rubber	Black	6.92
17447S♯	6	18 (41 x 34)	SJO neoprene	Black	5.12
17448S♯	6	16 (65 x 34)	SJO neoprene	Black	5.46
17449S♯	12	16 (65 x 34)	SJO neoprene	Black	7.60
17629S*	9	14 (41 x 30)	SJ rubber	Black	6.85
17635S*	15	14 (41 x 30)	SJ rubber	Black	11.17
17316S	6	18 (16 x 30)	Plastic	Black	2.68
17318S	8	18 (16 x 30)	Plastic	Black	3.21

*For heavy-duty power tools; conductors stripped and twisted ¾". †Outer jacket stripped 1½". ♯Coiled. Outer jacket stripped 1½"; conductors stripped and tinned ½".

THREE-CONDUCTOR PROJECTOR AND BUSINESS MACHINE CORDS (FIG. G)

A 1 vinyl insulation on plugs and connectors. Cord is SVT vinyl.

Belden Number	Lgth., Ft.	AWG (Strands)	Rating @ 125 VAC	Color	Net Each
17250C	7½	18 (41 x 34)	10 A	Black	$2.61
17255C	7½	16 (65 x 34)	13 A	Black	3.29
17251C	7½	18 (41 x 34)	10 A	Black	2.61
17254C*	7½	18 (41 x 34)	10 A	Black	2.26
17280S	7½	18 (41 x 34)	7 A	Gray/ Black	3.01
17952S	8	18 (41 x 34)	7 A	Gray	3.35

*No male plug; ends stripped ⅝" and twisted.

LOW-LEAKAGE POWER CORD

Belden SJT Type Low-Leakage 60-Hertz Power Cord reduces the hazards of shock due to current leakage between the two conductors and from the conductors out thru the jacket. Maximum leakage at 120 VAC is 6 microamps to green and 16 microamps to the jacket. Designed for hospitals and critical medical applications. Tan Flag label. Cords have hospital grade grounding plug.

Belden Number	Lgth., Ft.	AWG (Strands)	Rating @ 125 VAC	Color	Net Each
17005S	8	18 (41 x 34)	10 A	Brown	$16.79
17006S	8	16 (65 x 34)	13 A	Brown	17.41
17009S†	8	18 (41 x 34)	10 A	Gray	13.09

†Cord is not low leakage.

THREE-CONDUCTOR EXTENSION CORD SETS (FIG. H)

For business machines, power tools and appliances. Unbreakable, molded vinyl plugs and connectors. Black only. Blue Flag label. Certified to C.S.A. standards.

Belden No	Lgth., Ft.	AWG (Strands)	Type Cord	Rating @ 125 VAC	Net Each
17460S	10	18 (16 x 30)	SJ rubber	10 A	$ 4.79
17461S	10	16 (26 x 30)	SJ rubber	13 A	5.32
17475S*	25	16 (26 x 30)	SJO neoprene	13 A	12.87
17476S*	50	16 (26 x 30)	SJO neoprene	13 A	21.04
17675S*	25	14 (41 x 30)	SJT vinyl	15 A	22.36
17676S*	50	14 (41 x 30)	SJT vinyl	15 A	39.40

*Duplex grounding connector.

TYPE SPT COOLING FAN CORDS (FIG. H)

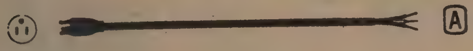
Designed with plug end at a 45° angle to fit contour of most cooling fans with terminal tabs perpendicular to air flow direction. Will fit terminal tabs on 5/16" centers and ranging from .019"–.025" in thickness, .110"–.120" in width, to .360" in length.

Belden Number	Lgth. Ft.	AWG (Strands)	Type Cord	Color	Net Each
17902	2	18 (41 x 34)	SPT	Black	$0.80
17903	3	18 (41 x 34)	SPT	Black	.96
17904	4	18 (41 x 34)	SPT	Black	1.12
17905	5	18 (41 x 34)	SPT	Black	1.28
17906	6	18 (41 x 34)	SPT	Black	1.44

COOPER INDUSTRIES

BELDEN Electronic Wire and Cable

THREE CONDUCTOR POWER SUPPLY CORDS WITH CEE COLOR CODING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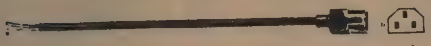
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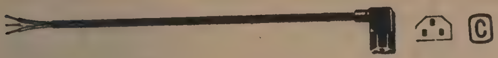
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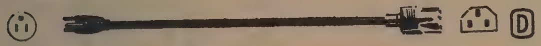
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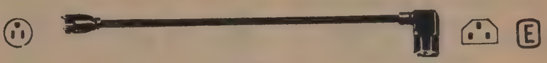
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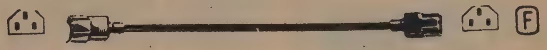
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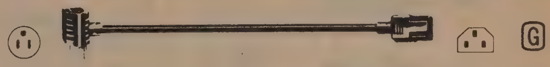
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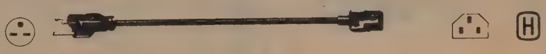

H

Shielded and unshielded power supply cords for electronic equipment. All cords incorporate the CEE (European) color coding and are UL listed, CSA certified and OSHA acceptable.

Belden No.	Fig.	Length	AWG and (Stranding)	Rating @ 125 V	Cord Type	Net Each
UNSHIELDED						
17534C	A	6′7″	18 (41 x 34)	10A	SVT	**$1.65**
17535C	A	9′10″	18 (41 x 34)	10A	SVT	**2.01**
17512C	A	6′7″	18 (41 x 34)	10A	SJT	**1.94**
17513C	A	9′10″	18 (41 x 34)	10A	SJT	**2.39**
17514C	A	6′7″	16 (65 x 34)	13A	SJT	**2.33**
17515C	A	9′10″	16 (65 x 34)	13A	SJT	**3.03**
17516C	A	6′7″	14 (41 x 30)	15A	SJT	**2.95**
17517C	A	9′10″	14 (41 x 30)	15A	SJT	**3.96**
17254C	B	7′6″	18 (41 x 34)	10A	SVT	**2.26**
17518C	B	6′7″	18 (41 x 34)	10A	SJT	**2.34**
17519C	B	9′10″	18 (41 x 34)	10A	SJT	**2.89**
17520C	B	6′7″	16 (65 x 34)	13A	SJT	**2.68**
17521C	B	9′10″	16 (65 x 34)	13A	SJT	**3.38**
17536C	C	6′7″	18 (41 x 34)	10A	SJT	**2.50**
17537C	C	9′10″	18 (41 x 34)	10A	SJT	**3.05**
17538C	C	6′7″	16 (65 x 34)	13A	SJT	**2.84**
17539C	C	9′10″	16 (65 x 34)	13A	SJT	**3.56**
17500C	B	6′7″	18 (41 x 34)	10A	SJT	**2.82**
17251C	B	7′6″	18 (41 x 34)	10A	SVT	**2.61**
17501C	B	9′10″	18 (41 x 34)	10A	SJT	**3.27**
17502C	B	6′7″	16 (65 x 34)	13A	SJT	**3.21**
17503C	B	9′10″	16 (65 x 34)	13A	SJT	**3.91**
17504C	B	6′7″	14 (41 x 30)	15A	SJT	**3.83**
17505C	B	9′10″	14 (41 x 30)	15A	SJT	**4.84**
17506C	E	6′7″	18 (41 x 34)	10A	SJT	**2.89**
17507C	E	9′10″	18 (41 x 34)	10A	SJT	**3.43**
17508C	E	6′7″	16 (65 x 34)	13A	SJT	**3.37**
17509C	E	9′10″	16 (65 x 34)	13A	SJT	**4.07**
17524C	F	3′3″	18 (41 x 34)	10A	SJT	**2.55**
17525C	F	3′3″	16 (65 x 34)	13A	SJT	**2.69**
17666C	G	6′7″	18 (41 x 34)	10A	SVT	**5.60**
17667C	G	9′10″	18 (41 x 34)	10A	SVT	**6.12**
17668C	G	6′7″	18 (41 x 34)	10A	SJT	**5.88**
17669C	G	9′10″	18 (41 x 34)	10A	SJT	**6.50**
17566C	H	6′7″	18 (41 x 34)	6A*	SVT	**2.63**
17567C	H	9′10″	18 (41 x 34)	6A*	SVT	**2.98**
17568C	H	6′7″	18 (41 x 34)	6A*	SJT	**2.90**
17569C	H	9′10″	18 (41 x 34)	6A*	SJT	**3.35**

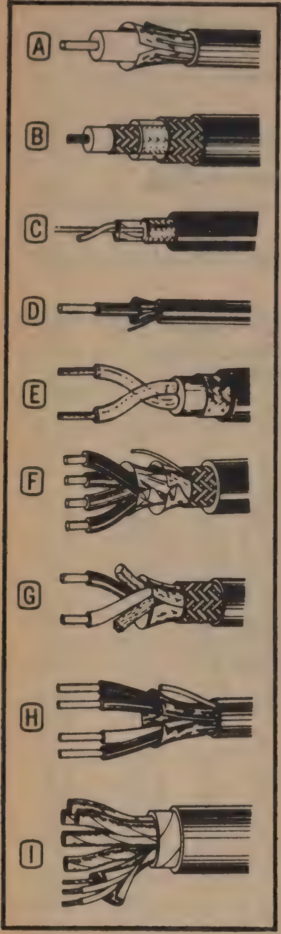
Belden No.	Fig.	Length	AWG and (Stranding)	Rating @ 125 V	Cord Type	Net Each
SHIELDED						
17740C	A	6′7″	18 (41 x 34)	10A	SVT	**$3.16**
17741C	A	9′10″	18 (41 x 34)	10A	SVT	**4.01**
17612C	A	6′7″	18 (41 x 34)	10A	SJT	**3.59**
17613C	A	9′10″	18 (41 x 34)	10A	SJT	**4.65**
17614C	A	6′7″	16 (65 x 34)	13A	SJT	**4.10**
17615C	A	9′10″	16 (65 x 34)	13A	SJT	**5.35**
17616C	A	6′7″	14 (41 x 30)	15A	SJT	**4.66**
17617C	A	9′10″	14 (41 x 30)	15A	SJT	**6.37**
17650C	A	6′7″	18 (41 x 34)	10A	SVT	**5.68**
17651C	A	9′10″	18 (41 x 34)	10A	SVT	**7.03**
17749C	B	6′7″	18 (41 x 34)	10A	SVT	**3.77**
17750C	B	9′10″	18 (41 x 34)	10A	SVT	**4.63**
17618C	B	6′7″	18 (41 x 34)	10A	SJT	**4.17**
17619C	B	9′10″	18 (41 x 34)	10A	SJT	**5.30**
17620C	B	6′7″	16 (65 x 34)	13A	SJT	**4.65**
17621C	B	9′10″	16 (65 x 34)	13A	SJT	**6.01**
17751C	C	6′7″	18 (41 x 34)	10A	SVT	**4.01**
17752C	C	9′10″	18 (41 x 34)	10A	SVT	**4.87**
17636C	C	6′7″	18 (41 x 34)	10A	SJT	**4.41**
17637C	C	9′10″	18 (41 x 34)	10A	SJT	**5.54**
17638C	C	6′7″	16 (65 x 34)	13A	SJT	**5.05**
17639C	C	9′10″	16 (65 x 34)	13A	SJT	**6.25**
17742	D	6′7″	18 (41 x 34)	10A	SVT	**4.36**
17743	D	9′10″	18 (41 x 34)	10A	SVT	**5.21**
17600C	D	6′7″	18 (41 x 34)	10A	SJT	**4.79**
17601C	D	9′10″	18 (41 x 34)	10A	SJT	**5.85**
17602C	D	6′7″	16 (65 x 34)	13A	SJT	**5.30**
17603C	D	9′10″	16 (65 x 34)	13A	SJT	**6.55**
17604C	D	6′7″	14 (41 x 30)	15A	SJT	**5.86**
17605C	D	9′10″	14 (41 x 30)	15A	SJT	**7.57**
17660	D	6′7″	18 (41 x 34)	10A	SVT	**7.30**
17661	D	9′10″	18 (41 x 34)	10A	SVT	**8.37**
17745C	E	6′7″	18 (41 x 34)	10A	SVT	**4.52**
17746C	E	9′10″	18 (41 x 34)	10A	SVT	**5.37**
17606C	E	6′7″	18 (41 x 34)	10A	SJT	**4.95**
17607C	E	9′10″	18 (41 x 34)	10A	SJT	**6.01**
17608C	E	6′7″	16 (65 x 34)	13A	SJT	**5.46**
17609C	E	9′10″	16 (65 x 34)	13A	SJT	**6.71**
17753C	F	3′3″	18 (41 x 34)	10A	SVT	**3.83**
17624C	F	3′3″	18 (41 x 34)	10A	SJT	**4.05**
17625C	F	3′3″	16 (65 x 34)	13A	SJT	**4.25**

MAGNET WIRE

Single Beldsol®: Dual film insulated magnet wire combines the excellent dielectric characteristics of polyurethane and toughness and solvent resistance offered by an overcoat of nylon. Rated by IEEE tests for 130° C usage and will solder without insulation removal at 750° F. Complies with MIL-W-583 specs. 40 AWG is Beldure® 105° C polyurethane film. **Heavy Armored Poly-Thermaleze:** Dual coated magnet wire. Base coat cross-linked, modified polyester: top coat amide-imide polymer; rated for 180° C usage. Exceptional ability to resist solvents and abuse in difficult windings. Complies with MIL-W-583 specs. 36, 38 and 40 AWG 180° C single polyester-imide, blue color.

	Single Beldsol®						Heavy Poly-Thermaleze					
	¼ lb. Spool			½ lb. Spool			½ lb. Spool			1 lb. Spool		
Size	Belden No.	Lgth., Ft.	Net Each	Belden No.	Lgth., Ft.	Net Each	Belden No.	Lght., Ft.	Net Each	Belden No.	Lght., Ft.	Net Each
14	....	....	....	....	....	....	**8059**	40	**$ 7.15**	**8073**	80	**$11.95**
16	....	....	....	**8048**	63	**$ 7.25**	**8060**	63	**7.35**	**8074**	126	**12.60**
18	....	....	....	**8049**	100	**7.65**	**8061**	100	**7.45**	**8075**	199	**12.95**
20	....	....	....	**8050**	160	**7.65**	**8062**	157	**7.85**	**8076**	315	**13.05**
22	....	....	....	**8051**	254	**7.65**	**8063**	250	**7.95**	**8077**	501	**13.05**
24	....	....	....	**8052**	404	**7.80**	**8064**	396	**8.30**	**8078**	793	**13.65**
26	....	....	....	**8053**	645	**8.10**	**8065**	630	**8.55**	**8079**	1260	**14.20**
28	....	....	....	**8054**	1020	**8.30**	**8066**	995	**8.95**	**8080**	1990	**15.40**
30	....	....	....	**8055**	1615	**9.05**	**8067**	1570	**9.75**	**8081**	3140	**17.75**
32	....	....	....	**8056**	2515	**9.85**	....	....	....	....	....	.....
34	....	....	....	**8057**	4060	**10.60**	**8069**	3930	**11.65**	**8083**	7860	**22.60**
36	....	....	....	**8058**	6400	**12.05**	....	....	....	....	....	.....
38	**8045**	5070	**$ 8.55**	....	....	.....	**8071**	9700	**15.65**	**8085**	19400	**31.40**
40	**8046**	8050	**11.75**	....	....	.....	....	....	.....	....	....	.....

®TM: Beldsol and Beldure of Belden.



COAXIAL COMPUTER CABLES

Belden No.	Fig.	AWG	Nom. O.D.	pF/Ft.	Imp., Ohms	Shields		Net Each, Spool of			
						No.	Type	100′	500′	1000′	2000′
9889▲	A	18	.216″	26	50	1	a	.....	$111.85	$184.35	$368.70
9888	B	11	.480″	26	50	2	b	.....	345.15	690.30	......
8254	C	22	.238″	13.5	93	1	b	$24.70	92.00*	151.65*	......
9393▲	D	30	.100″ x .115″	14	93	1	c	22.05	70.65	125.00	......

a—Duofoil; **b**—bare copper braid; **c**—Beldfoil. ▲UL listed.

TWINAXIAL 2 AND 3 PAIR DATA CABLES

Belden No.	Fig.	AWG	No. of Conds.	Nom. O.D.	pF/Ft.	Imp., Ohms	Shields		Net Each, Spool of			
							No.	Type	100′	500′	1000′	2000′
9207▲●	E	20	2	.330″	15.5	100	1	a	$70.20	$211.35*	$422.70	$846.00
9855▲●	F	22	4	.290″	15.5	100	2	a,b	40.05	125.80*	251.55	......
9860▲	G	16	2	.440″	10.9	124	2	a,c	.....	303.25	606.45	1213.50
9463	G	20	2	.243″	19.7	78	1	b	39.25	125.00*	222.90*	......
9863▲	F	25	6	.430″	12.2	124	†	b	95.85	309.40	618.75	......
9182▲●	F	22	2	.350″	8.8	150	1	c	.....	167.35*	334.65	......
9696	H	22	4	.296″	15.5	100	1	b	42.70	144.00*	288.00	......
9271	F	25	2	.242″	12.2	124	1	b	19.50	73.80*	125.00*	......

a—tinned copper braid; **b**—Beldfoil; **c**—Duofoil. †One shield per pair. ▲UL listed.

DATALENE COMPUTER CABLES

No. 9184: Overall Duofoil shield, black vinyl jacket. **No. 9730 thru 9738:** Tinned copper conductors, Datlene insulation, twisted pairs individually shielded with Beldfoil shield, chrome vinyl jacket. All cables are UL listed.

Belden No.	Fig.	No. of Conds.	AWG and (Stranding)	pF/Ft.	Nom. O.D.	Net Each, Spool of		
						100′	500′	1000′
9182	E	1	22 (19 x 34)	8.8	.350″	......	$ 167.35*	$ 334.65
9184●	H	2	22 (Solid)	8.7	.385″	......	240.30	480.60
9729	H	4	24 (7 x 32)	12.5	.335″	$ 41.70	140.05	280.05
9730	I	3	24 (7 x 32)	12.5	.345″	49.50	174.55	349.05
9728	I	8	24 (7 x 32)	12.5	.404″	73.45	238.30	476.55
9731●	I	6	24 (7 x 32)	12.5	.476″	103.10	364.15	728.25
9732●	I	9	24 (7 x 32)	12.5	.570″	125.00	536.25	1072.50
9733●	I	11	24 (7 x 32)	12.5	.610″	173.10	639.00	1278.00
9734●	I	12	24 (7 x 32)	12.5	.630″	186.30	686.25	1372.50
9735●	I	15	24 (7 x 32)	12.5	.700″	230.25	849.00	1696.50
9736●	I	17	24 (7 x 32)	12.5	.730″	267.25	985.50	1971.00
9737●	I	19	24 (7 x 32)	12.5	.750″	304.95	1125.00	2248.50
9738●	I	27	24 (7 x 32)	12.5	.875″	433.25	1597.50	3195.00

●Passes the FR-1 vertical flame test.

GENERAL PURPOSE INTERFACE BUS CABLES

For interfacing computer power with test and measurement hardware without resorting to time-consuming patchwork wiring. Can be used to interconnect up to 15 programmable instruments at one time in star or daisy chain networks. UL approved. Cable has 6 pairs of 26 AWG, 10 single 26 AWG conductors and one single 24 AWG conductor; braid shield with 24 AWG drain wire; semi-rigid PVC insulation; and gray PVC jacket. Cables ends have 24-pin AMP connectors (male and female) with gold plated beryllium copper pins. **Capacitance:** 35 pF/ft for 10 single conductors; 38 pF/ft for 6 pairs. **Impedance:** 70 ohms for 10 single conductors; 75 ohms for 6 pairs.

Belden No.	Length	Net Each	Belden No.	Length	Net Each
9641	100′	$114.95	9643	6.6′	$ 69.00
	500′	381.00	9644	13.1′	78.40
	1000′	762.00	9645	26.2′	93.80
9642	3.3′	65.65	9646	52.2′	125.95

EIA RS-232-C CABLE ASSEMBLIES

The ultimate interface for your data terminal and communications equipment employing serial data exchange. Belden's 25-conductor molded cable assemblies are designed and built to meet EIA Standard RS-232-C and types A through M standard interfaces. Subminiature "D" type male and female connectors assure positive mating and no mix-up. Custom designed assemblies are available on special request. Cable has 25 conductors of #22 AWG (7 x 30) stranded tinned copper with PVC insulation and jacket. Also available in shielded versions; details and prices available on request.

Bulk Cable			Complete Cable Assemblies					
			Male both ends			Male one end/ Female other end		
Belden Number	Length, Feet	Net Each	Belden Number	Length, Feet	Net Each	Belden Number	Length, Feet	Net Each
8459	100	$119.25	9651	5	$29.75	9652	5	$31.00
	500	411.75	9647	10	33.50	9653	10	34.70
	1000	823.50	9648	25	44.65	9654	25	45.90
			9649	50	60.75	9655	50	62.00
			9650	70	74.40	9656	70	75.65

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.**

PORTABLE CORDAGE

Belden No.	UL Type	Fig.	No. of Conds.	AWG and (Stranding)	Jkt. Mat'l.	Net per 1000', Lots of 250'-999'	1000'-4999'	5000'-24,999'	25,000'-99,999'
19122	SPT	A	2	18 (41 x 34)	Plastic	$ 81.30	$ 75.65	$ 70.05	$ 63.20
19123	SPT	A	2	18 (41 x 34)	Plastic	106.40	99.05	91.65	82.75
19126	SPT	A	2	16 (65 x 34)	Plastic	141.40	131.60	121.75	109.95
19115	SP	A	2	18 (41 x 34)	Rubber	110.65	103.00	95.30	86.05
19328	HPN	A	2	18 (41 x 34)	Neoprene	150.65	140.20	129.75	117.15
19326	HPN	A	2	16 (65 x 34)	Neoprene	199.05	185.25	171.45	154.80
19140	SVT	B	2	18 (41 x 34)	Plastic	135.40	126.05	116.65	105.35
19120	SV	B	2	18 (41 x 34)	Rubber	173.05	161.05	149.05	134.55
19227	SJO	B	2	18 (16 x 30)	Neoprene	227.15	211.40	195.65	176.60
19228	SJO	B	2	16 (26 x 30)	Neoprene	275.55	256.45	237.30	214.25
19204	SO	B	2	18 (41 x 34)	Neoprene	366.60	341.15	315.70	285.00
19203	SO	B	2	16 (65 x 34)	Neoprene	425.80	396.25	366.70	331.05
19202	SO	B	2	14 (41 x 30)	Neoprene	669.05	622.65	576.25	520.20
19201	SO	B	2	12 (65 x 30)	Neoprene	934.90	870.05	805.20	726.90
19348	SJT	C	3	18 (41 x 34)	Plastic	238.35	221.80	205.30	185.30
19349	SJT	C	3	16 (65 x 34)	Plastic	292.50	272.20	251.90	227.45
19350	SVT	C	3	18 (41 x 34)	Plastic	175.60	163.45	151.25	136.55
19351	SVT	C	3	17 (52 x 34)	Plastic	204.50	190.30	176.15	159.00
19129	SJ	C	3	18 (16 x 30)	Rubber	241.70	224.95	208.15	187.95
19125	SJ	C	3	18 (41 x 34)	Rubber	261.85	243.70	225.55	203.60
19130	SJ	C	3	16 (26 x 30)	Rubber	311.30	289.70	268.10	242.05
19124	SJ	C	3	16 (65 x 34)	Rubber	338.60	315.10	291.60	263.25
19109	S	C	3	18 (41 x 34)	Rubber	329.70	306.85	283.95	256.35
19108	S	C	3	16 (65 x 34)	Rubber	411.60	383.05	354.50	320.05
19107	S	C	3	14 (41 x 30)	Rubber	666.00	619.80	573.60	517.85
19106	S	C	3	12 (65 x 30)	Rubber	889.95	828.20	766.45	691.95
19105	S	C	3	10 (105 x 30)	Rubber	1211.40	1127.35	1043.30	941.85
19229	SJO	C	3	18 (16 x 30)	Neoprene	281.60	262.10	242.55	218.95
19230	SJO	C	3	16 (26 x 30)	Neoprene	362.00	336.90	311.80	281.50
19209	SO	C	3	18 (41 x 34)	Neoprene	418.75	389.70	360.65	325.60
19208	SO	C	3	16 (65 x 34)	Neoprene	515.70	479.95	444.15	400.95
19207	SO	C	3	14 (41 x 30)	Neoprene	859.45	799.85	740.20	668.25
19206	SO	C	3	12 (65 x 30)	Neoprene	1141.80	1062.55	983.35	887.75
19205	SO	C	3	10 (105 x 30)	Neoprene	1505.40	1400.95	1296.50	1170.45
19352	SJT	C	3	18 (41 x 34)	Plastic	238.35	221.80	205.30	185.30
19353	SJT	C	3	16 (65 x 34)	Plastic	292.50	272.20	251.90	227.45
19354	SJT	C	3	14 (41 x 30)	Plastic	340.50	316.90	293.25	264.75
19362	SJT	C	3	18 (41 x 34)	Plastic	290.20	270.05	249.90	225.60
19363	SJT	C	3	16 (65 x 34)	Plastic	358.35	333.50	308.65	278.60
19364	SJT	C	3	14 (41 x 30)	Plastic	426.90	397.30	367.65	331.90
19217	SO	C	4	14 (41 x 30)	Neoprene	1002.25	932.75	863.20	779.25
19216	SO	C	4	12 (65 x 30)	Neoprene	1378.50	1282.85	1187.25	1071.80
19401*	SVT	C	3	18 (41 x 34)	Plastic	290.20	270.05	249.90	225.60
19402	SVT	C	3	18 (41 x 34)	Plastic	175.80	163.45	151.25	136.55

*With Beldfoil shield and drain wire.

MULTI-CONDUCTOR PORTABLE CORDAGE

Nos. 8462 and 8888 (Fig. A): Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed. **All Others: (Fig. D):** Stranded copper, rubber insulated, cabled with fillers, black rubber jacket. **Color-coded:** Black and white except as noted. U.L. Listed.

Belden No.	UL Type	No. Cond.	AWG and (Stranding)	Nominal O.D.	Net Each, Spool of 25'	50'	100'	250'	500'	1000'
8462*	SP-1	2	18 (41 x 34)•	.123" x .227"	$6.25	.....	$19.50	$44.50	.....	.....
8888†	SPT-1	2	18 (41 x 34)	.110" x .207"	6.10	.....	17.05	36.60	$72.65■	125.00■
8452	SV	2	18 (41 x 34)	.245"	....	$16.30	29.15	64.10	125.00*	211.05*
8478	SJ	2	18 (41 x 34)	.298"	....	.....	31.85	75.10	.....	246.65
8472	SJ	2	16 (65 x 34)	.325"	....	.....	43.95	102.05	.....	.....
8453	SV	3‡	18 (41 x 34)•	.257"	....	20.70	39.60	.....	152.50	.....
8479	SJ	3‡	14 (41 x 30)	.380"	....	.....	64.35	129.15	.....	.....
8454	....	4§	18 (41 x 34)•	.272"	....	23.50	44.50	.....	166.90*	333.75*
8455	....	5#	3-20 (26 x 34)• 2-18 (41 x 34)•	.280"	....	.....	43.95	110.20	181.20■	362.40■
9997	SJT	3	18 (41 x 34)	.430"	....	.....	85.00	.....	303.00	606.00
9998	SJT	3	16 (65 x 34)	.475"	....	.....	101.75	.....	363.75	727.50

Specify: *Brown or ivory rubber; †Brown, ivory or gray vinyl. ‡Black, white, green. §Black, white, brown, red. #Brown, green, white, black, red. •Tinned.

TELEVISION AND SERVICEMAN CORDS (FIG. E)

No.	Description	Each	No.	Description	Each
8895	6' SPT-1 brn. plastic, male TV plug	$2.09*	8889	9' SPT-1 brn. plastic, male TV plug	$2.48‡
8873	Same as 8895 but polarized	2.37†	8875	6' SPT-1 red plastic extension	2.33

Available in bulk, 100-pack: ***$115.00**; †**$113.00**; ‡**$136.00.** U.L. Listed.

ALUMINUM GROUND WIRE

Belden No. 8018 (Not Illus.)—Solid 8 AWG soft annealed aluminum wire packaged in counter dispensers of ten 50 ft. connected coils, or spools of 500 ft. lengths. Spooled wire marked every 100ft.

50' Coil, Net........................**$5.40**　**500' Spool,** Net....................**$43.25**

TRAY CABLES

Listed under Subject 1277 as Tray Cable in accordance with Articles 318, 340, 500 and 501 of the NEC. Pass the U.L. 70,000 BTU flame test and the FR-1 vertical flame test. Suitable for outdoor use. **Nos. 9341 thru 9344:** Stranded tinned copper, PVC insulation, nylon overcoat, conductors cabled. Beldfoil shield and drain wire, black PVC jacket. **Nos. 9486 thru 9489:** Same, except no shield.

Belden No.	Fig.	No. of Conds.	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of 100'	500'	1000'
9341	F	2	18 (16 x 30)	.278"	$50.60	$183.75	$367.50
9342	F	2	16 (26 x 30)	.304"	56.80	206.10	412.20
9343	F	2	14 (41 x 30)	.358"	64.10	232.15	464.25
9344	F	2	12 (65 x 30)	.390"	87.65	318.00	636.00
9486	G	2	18 (16 x 30)	.279"	45.60	156.10	312.15
9487	G	2	16 (26 x 30)	.306"	51.45	175.65	351.30
9488	G	2	14 (41 x 30)	.359"	54.60	186.55	373.05
9489	G	2	12 (65 x 30)	.399"	77.10	264.25	528.45

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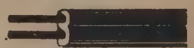

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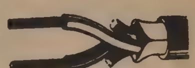

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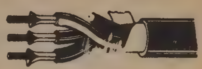

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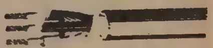

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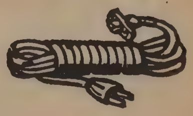

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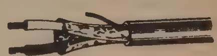

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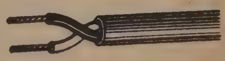


***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE. ■UNREEL PACKAGE ONLY.**

COOPER INDUSTRIES

BELDEN Electronic Wire and Cable

BRAIDED TINNED COPPER SHIELDING AND BONDING CABLES (FIG. A)

Belden No.	Stranding	Nom. I.D.	Net Each, Spool of 10′	50′	250′	Belden No.	Stranding	Nom. I.D.	Net Each, Spool of 10′	50′	250′
8676	16 x 36	1/32″	$3.35	$ 6.10	$27.30	8669	336 x 34	5/8″	$ 9.50	$ 40.15	$154.05
8674	24 x 36	3/64″	3.66	8.55	38.15	8662	576 x 34	19/32″†	13.50	56.35	222.70
8652	96 x 40	1/16″	4.20	10.20	41.50	8670	480 x 30	3/4″†	20.60	100.20	359.40
8654	72 x 36	7/64″	4.31	12.30	51.35						
8660	96 x 34	5/32″	4.42	13.05	62.45						
8668	120 x 34	3/16″	6.05	16.65	73.35						
8663	168 x 34	5/16″	6.35	21.20	93.55						
8661	192 x 34	1/2″	6.10	19.60	91.65						

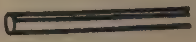
†Flat width. *Spool may contain more than one piece, minimum length of any one piece is 25 ft.

A

SOLID TINNED COPPER BUS BAR WIRE (FIG. B)

Made in accordance with Federal Spec QQ-W-343.

Belden No.	AWG	Nom. O.D.	Net Each, Spool of 100′	1000′	Belden No.	AWG	Nom. O.D.	Net Each, Spool of 100′	1000′
8011	12	.080″	$21.70	.....	8021	22	.025″	$4.28	$26.95
8012	14	.064″	14.60	$119.60	8022	24	.020″	4.11	21.85
8013	16	.050″	9.50	81.35	8023	26	.016″	3.99	20.40
8019	18	.040″	6.80	51.90	8024	28	.012″	3.86	17.50
8020	20	.032″	5.15	36.25	8025	30	.010″	3.86	16.75


B

MIL-W-16878 TYPE B MULTI-CONDUCTOR SHIELDED CABLE (FIG. C)

Suitable for general purpose use in communications and instrumentations applications. Stranded tinned copper conductors, vinyl insulated, clear nylon jacket, conductors cabled, tinned copper braid shield, white vinyl jacket. Insulation .010″ thick. WV, 600 V suggested. Conductor Color Code: **1**, white; **2**, black; **3**, red; **4**, green. Pass the FR-1 vertical flame test.

Belden No.	No. of Cond.	AWG and (Stranding)	Nom. O.D.	Shield Cov. %	Nom. Cap.* pF/ft.	Net Each, Spool of 100′	500′	1000′
9965	1	22 (19 x 34)	.100″	92	90	$24.05	$106.30	$175.20
9961	1	20 (19 x 32)	.109″	93	100	25.05	111.95	184.50
9951	1	16 (19 x 29)	.139″	93	125	33.25	125.00	247.80
9966	2	22 (19 x 34)	.176″	91	87	39.95	144.30	288.60
9962	2	20 (19 x 32)	.192″	92	95	46.05	164.80	329.55
9952	2	16 (19 x 29)	.238″	92	120	55.45	213.00	426.00
9967	3	22 (19 x 34)	.184″	91	87	54.55	201.75	403.50
9963	3	20 (19 x 32)	.202″	91	95	56.10	216.60	433.20
9953	3	16 (19 x 29)	.250″	91	120	76.35	291.25	582.45
9968	4	22 (19 x 34)	.200″	90	87	61.00	215.80	431.55
9964	4	20 (19 x 32)	.212″	92	95	68.00	260.05	520.05
9954	4	16 (19 x 29)	.270″	91	120	96.40	359.40	718.80

*Capacitance between one conductor and other conductor connected to shield.

C

MISCELLANEOUS SPECIAL DUTY WIRES

Belden No. 8868 High Voltage CRT Lead (Fig. E)—Tinned copper 22 AWG, 7 x 30 stranded, conductive polyethylene, polyethylene insulated, red vinyl jacket; extra flexible and small. Rated 50,000 V breakdown; 25,000 V working. O.D., .150″ nominal. **25′ Spool,** Net.................... **$ 5.90**
100′ Spool, Net........................ **$14.95** **500′ Spool,** Net.................... **56.10***

Belden No. 8866 High Voltage CRT Lead (Fig. E)—Tinned copper 18 AWG, 16 x 30 stranded, conductive polyethylene, polyethylene insulated, red vinyl jacket. Rated 80 kV breakdown; 40,000 V working. O.D., .208″ nom.

25′ Spool, Net...... **$8.90** **100′ Spool,** Net....... **$25.85** **500′ Spool,** Net..... **$106.85***

Belden No. 8869 High Voltage CRT Lead (Fig. E)—Tinned copper 22 AWG, 7 x 30 stranded, conductive polyethylene, polyethylene insulated, black vinyl jacket. Rated 35,000 V breakdown, 17,000 V working. Nom. O.D., .120″.

25′ Spool, Net........ **$4.73; 100′ Spool,** Net....... **$11.95; 500′ Spool,** Net....... **$43.60**

Belden No. 9867 High Voltage Lead (Fig. E)—Tinned copper 20 AWG, 7 x 28½ stranded, conductive polyethylene, polyethylene insulated, red vinyl jacket. Rated 60,000 VDC breakdown; 30,000 VDC working. O.D., .191″, nominal.

25′ Spool, Net........ **$7.75; 100′ Spool,** Net........ **$19.15; 500′ Spool,** Net....... **$72.90**

Belden No. 8870 High Voltage Lead (Fig. F)—Bare No. 22 copper covered steel, conductive polyethylene, polyethylene insulated, tinned copper braid equipotential sheath, black polyethylene jacket. Rated 80,000 VDC working.

100′ Spool, Net... .... **$125.00; 250′ Spool,** Net.................... **$305.10**

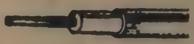
Belden No. 8871 High Voltage Lead (Fig. G)—77% coverage tinned copper braid equivalent to 16 AWG wire over solid polyethylene rod, black conductive polyethylene, clear polyethylene insulation, tinned copper braid, black polyethylene jacket. Rated 200,000 VDC working.

25′ Spool, Net..... **$137.85; 100′ Spool,** Net..... **$640.05; 250′ Spool,** Net..... **$1375.50**

Belden No. 8000 Antenna Wire—Bare copper covered steel 14 AWG (7 x 22 stranding). O.D., .076″ nominal. **50′ Spool,** Net.............. **$ 6.85; 75′ Spool,** Net...................... **$ 9.65**
100′ Spool, Net....................... **11.95; 1000′ Spool,** Net.................... **107.60**

Belden No. 8002—Same, except 16 AWG (7 x 24 stranding. O.D., .060″, nominal.
50′ Spool, Net.......................... **$4.82; 100′ Spool,** Net.......................... **$8.35**

®TM: Celenamel, Duobond, Duofoil of Belden; Hypalon of DuPont.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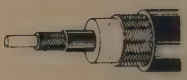
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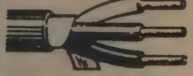
*ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE.

THREE CONDUCTOR SHIELDED CABLES

Three conductor cable with three conductors shielded; #30 thru #16 gauge. **Fig. K Types:** Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield. Chrome vinyl jacket. **Fig. L Types:** Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield. Chrome vinyl jacket. No. 8643: Same, but polypropylene insulated conductors cabled around textile strength member. Operating temperature, 105° C max. **Fig. M Types:** Tinned copper, polyethylene insulated, conductors cabled, Beldfoil aluminum-polyester shield, stranded tinned copper ground drain wire (22 AWG for 9770 and 8771, 20 AWG for 8770 and 8772, 18 AWG for 8618), chrome vinyl jacket. **Color Coding:** Black, red and white except 8771, 8772, 8770 and 8618, black, red and clear.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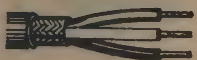
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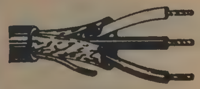
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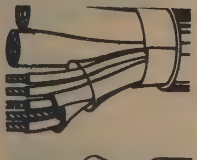
Belden No.	Fig.	AWG and (Stranding)	Nom. O.D.	Cap.,* pF/ft.	Working Volts	Net Each, Spool of				
						15′	50′	100′	500′	1000′
8791•	A	18 (7 x 26)	.260″	84	450	....	.....	$36.95	$129.00*	$258.00*
8735•▴	B	22 (7 x 30)	.199″	60	300	$5.90	$15.60	26.70	108.05*	178.05*
8643	B	30 (7 x 38)	.096″	43	200	....	.....	31.30	70.20#	......
8618•▴	C	16 (19 x 29)	.318″	60	600	....	.....	.....	156.85*	313.65
8771•▴	C	22 (7 x 30)	.183″	41	300	....	.....	33.80#	67.45*	125.00*
8772•▴	C	20 (7 x 28)	.208″	51	300	....	.....	.....	78.30*	129.00*
8770•▴	C	18 (16 x 30)	.236″	48	300	....	.....	.....	108.05*	178.05*
9770‡•	C	22 (7 x 30)	.145″	60	200	....	.....	45.25#	90.40*	148.95*

*Capacitance between one conductor and other conductors connected to shield. ‡Polypropylene insulated and brown vinyl jacket. •Passes the FR-1 vertical flame test. †Similar. ▴U.L. Listed. #250 ft.

AUDIO, COMMUNICATION AND INSTRUMENTATION CABLES

Belden No. 9685—Two tinned copper 22 AWG (7 x 30), Beldfoil aluminum-polyester shield with 22 AWG drain wire; one tinned copper 22 AWG (7 x 30) unshielded; pair and single cabled; chrome vinyl jacket.
500′Unreel Package, Net.............. **$71.20** **1000′ Unreel Package,** Net.......... **$125.00**

Belden No. 9686—Three tinned copper 20 AWG (10 x 30) and three tinned copper 16 AWG (26 x 30), vinyl insulation, conductors cabled, chrome vinyl jacket.
500′ Unreel Package, Net........... **$169.20** **1000′ Spool,** Net.................... **$338.40**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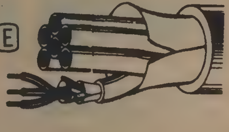
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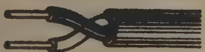

F

Multiple Quads Audio and Communication Cables (Fig. D): Polypropylene insulation, 22 AWG (7 x 30) tinned copper, cabled in quads, Beldfoil aluminum-polyester shield over black and red conductors, 24 AWG stranded tinned copper drain wire, clear polyester tape over entire quad, shields color-coded, chrome vinyl jacket. Nom. capacitance, 67 pF/ft. between one conductor and other conductors connected to shield. Nom. O.D., .330″ No. 8726; .435″ No. 8727. Cabled around common axis; request information before planning high and low level circuits in same cable.

Belden No. 8726•—100′ Spool, Net. $ 83.75 **500′ Spool,** Net... $296.55 **1000′ Spool,** Net.. $ 593.10

Belden No. 8727•—100′ Spool, Net..164.70 **500′ Spool,** Net... 681.00 **1000′ Spool,** Net...1362.00

Multiple Triplets Audio, Communication and Instrumentation Cables (Fig. E): Tinned copper, polypropylene insulated, 22 AWG (7 x 30) conductors cabled in triplets, each shielded with Beldfoil aluminum-polyester shield, 22 AWG stranded tinned copper drain wire, .020″ white vinyl jacket, individual triplet jackets identified by color-coded stripes, triplets cabled, overall chrome vinyl jacket. Nom. capacitance, 60 pF/ft. between one conductor and other conductors connected to shield. Insulation, .008″ th. Working voltage, 300 V suggested. Conductors color coded black, red and green.

Belden No. 9771•—21 conductors (7 triplets); .550″ nom. diameter. **500′ Spool,** Net.... **$ 633.75**

Belden No. 9772•—36 conductors (12 triplets); .740″ nom. diameter. **500′ Spool,** Net.... **1077.00**

Telephone Cables (Fig. F): Bare copper 22 AWG (solid), polyethylene insulated, conductors cabled, rose gray vinyl jacket. Insulation, .016″ thick; jacket, .022″ thick.

Belden No. 8795—Two conductor color-coded red, green. Nom. O.D., .160″. U.L. Listed.
500′ Unreel, Net..................... **$40.50** **1000′ Spool,** Net.................... **$81.00***

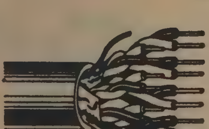
Belden No. 8794▴—Three conductor color-coded red, green, yellow. Nom. O.D., .168″. U.L. Listed.
500′ Unreel, Net..................... **$42.90** **1000′ Spool,** Net.................... **$85.75***

Belden No. 9794▴—Four conductor color-coded green, red, yellow, black. Nom. O.D., .190″; jacket, .025″ th. **500′ Unreel,** Net............ **$53.00** **1000′ Spool,** Net.................... **$105.95***

®TM: Beldfoil of Belden. •Passes the FR-1 vertical flame test. ▴U.L. Listed.

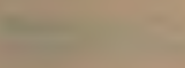
MULTIPLE PAIR SHIELDED SOUND AND CONTROL CABLE (FIG. G)

Tinned copper, vinyl insulated twisted pairs, overall Beldfoil aluminum-polyester shield, stranded tinned copper drain wire, chrome vinyl jacket. UL Listed. Pass FR-1 vertical flame test.


G

Belden No.	No. of Pairs	AWG and (Stranding)	Nom. O.D.	Net Each, Spool of		
				100′	500′	1000′
9461	1	22 (7 x 30)	.175″	.....	$ 63.70*	$ 125.00■
9302	2	22 (Solid)	.244″	$ 19.15	74.90*	125.00*
9305	4	22 (Solid)	.265″	32.50	125.00*	208.35*
9306	6	22 (Solid)	.321″	38.35	135.10	270.15
9309	9	22 (Solid)	.373″	55.55	194.70	389.40
9315	15	22 (Solid)	.480″	96.65	346.00	691.95
9319	19	22 (Solid)	.495″	119.25	426.00	852.00
9327	27	22 (Solid)	.590″	155.15	579.75	1159.50
9501	1	24 (7 x 32)	.156″	15.15	56.80*	113.60*
9502	2	24 (7 x 32)	.222″	26.70	100.20*	165.15*
9503	3	24 (7 x 32)	.232″	35.80	125.00*	223.95*
9504	4	24 (7 x 32)	.265″	46.05	143.65*	287.25*
9505	5	24 (7 x 32)	.295″	57.55	179.55*	359.10*
9506	6	24 (7 x 32)	.295″	66.35	206.85*	413.70*
9507	7	24 (7 x 32)	.300″	75.75	237.10*	474.15*
9508	8	24 (7 x 32)	.330″	85.75	268.90	537.75
9509	9	24 (7 x 32)	.340″	95.65	300.15	600.30
9510	10	24 (7 x 32)	.380″	105.60	330.85	661.65
9515	15	24 (7 x 32)	.425″	148.35	486.00	972.00
9519	19	24 (7 x 32)	.460″	187.70	615.75	1231.50
9525	25	24 (7 x 32)	.515″	241.60	793.50	1585.50
9550	50	24 (7 x 32)	.700″	477.15	1564.50	3129.00

FOAM CORE TRANSMISSION LINE (FIG. H)


H

Belden No. 9221—Tinned copper 30 AWG, 7 x 38 stranded conductor, cellular polypropylene insulation, tinned copper shield, black vinyl jacket. Nom. cap., 17.4 pF/ft. O.D., .097″ nom. U.L. Listed. **25′ Spool,** Net........ **$7.15** **100′ Spool,** Net....... **$19.70** **500′ Spool,** Net..... **$71.10***

Belden No. 8214•—RG-8/U for citizens' band and amateur radio as 50-ohm antenna cable. Copper 11 AWG, 7 x 19 stranded conductor, cellular polyethylene foam insulation, bare copper braid shield with black vinyl jacket overall. Nom. cap., 26 pF/ft. Vel. of propag. 78%, nom. Nom. O.D., .405″. U.L. Listed. **50′ Spool,** Net....... **$ 29.95** **100′ Spool,** Net...................... **$ 51.55**
500′ Spool, Net.................. **192.55** **1000′ Spool,** Net...................... **385.05**

Belden No. 8219—Same, but RG-58/AU with tinned copper 20 AWG, 19 x 32 stranded conductor, tinned copper braid shield; nom. O.D., .195″. U.L. Listed. **100′ Spool,** Net........... **$ 23.50**
500′ Spool, Net..................... **$85.90*** **1000′ Spool,** Net.................. **141.60***

®TM: Permohm, Duobond, Weldohm, Beldfoil and Celluline of Belden. •Passes the FR-1 vertical flame test.

***ALSO AVAILABLE IN UNREEL PACKAGE AT SAME PRICE. ■UNREEL PACKAGE ONLY.**

MULTIPAIR OVERALL SHIELDED CABLES (FIG. A)

Suitable for RS-422 type applications.

Belden Number	No. of Pairs	AWG and (Stranding)	Imp., Ohms	O.D. Ins.	Net Each, Spool of 100′	500′	1000′
9804	2	28 (7 x 36)	100	.220	$ 51.55	$ 161.95	$ 323.85
9805	3	28 (7 x 36)	100	.230	63.65	200.25	400.50
9806	4	28 (7 x 36)	100	.240	74.55	234.45	468.90
9807	5	28 (7 x 36)	100	.250	86.40	272.50	544.95
9808	7	28 (7 x 36)	100	.265	110.60	361.30	722.55
9809	9	28 (7 x 36)	100	.300	125.00	444.00	888.00
9810	10	28 (7 x 36)	100	.320	125.00	489.00	978.00
9812	12	28 (7 x 36)	100	.330	178.80	616.50	1233.00
9819	18	28 (7 x 36)	100	.375	247.65	870.00	1740.00
9825	25	28 (7 x 36)	100	.430	366.80	1299.00	2598.00
9829	2	24 (7 x 32)	100	.295	59.10	182.95	365.85
9830	3	24 (7 x 32)	100	.310	67.35	209.05	418.05
9831	4	24 (7 x 32)	100	.330	78.10	242.85	485.70
9832	5	24 (7 x 32)	100	.350	87.95	274.05	548.10
9833	7	24 (7 x 32)	100	.370	110.75	360.70	721.35
9834	9	24 (7 x 32)	100	.420	125.00	479.25	958.50
9835	10	24 (7 x 32)	100	.450	151.15	518.25	1036.50
9836	12	24 (7 x 32)	100	.470	177.55	651.75	1303.50
9837	18	24 (7 x 32)	100	.570	233.75	843.00	1686.00
9838	25	24 (7 x 32)	100	.660	306.90	1108.50	2215.50
9842	2	24 (7 x 32)	120	.355	74.00	235.65	471.30
9843	3	24 (7 x 32)	120	.365	82.55	263.05	526.05
9844	4	24 (7 x 32)	120	.395	98.55	318.30	636.60

FLOODED BURIAL CABLE (FIG. B)

9590	..	20 (Solid)	75	.242	.....	......	$105.05
9587	..	18 (Solid)	75	.275	.....	......	125.00

PLENUM CABLES

For use in return-air plenum chambers wthout conduit.

COAXIAL AND TWINAXIAL

Belden No.	Fig.	No. of Conds.	AWG and (Stranding)	Imp., Ohms	Cap., pF	Shields	Nom. O.D.	Jacket	Net Each, Spool of 100′	500′	1000′
88240	C	1	20 (Solid)	53.5	27	b	.182″	BKT	$112.65	$ 845.00#	$ 845.00
89880	D	1	.0855″	53.5	26	c,b,d,b	.378″	ORT	480.00	4350.00#	4350.00
88241	C	1	22 (Solid)	75	19.7	a	.208″	BKT	125.00	983.00#	983.00
89108	E	1	20 (Solid)	75	16.5	d,b	.218″	BKT	125.00	1015.00#	1015.00
89120	E	1	18 (Solid)	75	17	d,b	.253″	BKT	......	1484.00#	1484.00
88281	F	1	20 (Solid)	75	19	b,b	.304″	BKT	......	2018.00#	2018.00
89269	G	2	22 (Solid)	93	12.8	a	.222″	BKT	120.15	900.00#	900.00
89272	H	2	20 (7 x 28)	78	18.5	b	.220″	BLT	125.00	1095.00#	1095.00
89207	I	2	20 (7 x 28)	100	13	b	.282″	BKT	280.50	2550.00#	2550.00
89855	J	4	22 (Solid)	100	15.5	d,b	.280″	BKT	......	1638.00#	1638.00

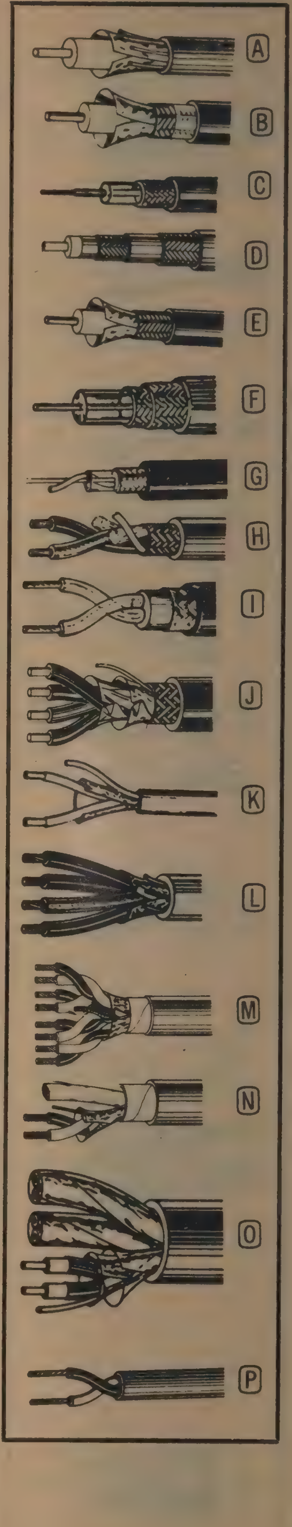
a—bare copper braid; b—tinned copper braid; c—aluminum/polyester shield; d—Duofoil. BKT—Black Teflon; ORT—Orange Teflon; BLT—Blue Teflon. #Per 1000 ft.

MULTICONDUCTOR

Shielded types have tinned copper conductors, Teflon insulated, Beldfoil aluminum/polyester shield, stranded tinned copper drain wire, red Teflon jacket. Unshielded types have tinned copper conductors, Teflon insulated, overall tape wrap, red transparent Teflon jacket.

Belden Number	Fig.	No. of Conds.	AWG and (Stranding)	Cap., pF	Nom. O.D.	Net Each, Spool of 100′	500′	1000′
OVERALL SHIELDED								
88641	K	2	24 (7 x 32)	27	.135″	$ 54.05	$ 405.00#	$ 405.00
88761	K	2	22 (7 x 30)	31	.150″	61.25	458.55#	458.55
88760	K	2	18 (19 x 30)	33	.196″	82.10	615.00#	615.00
89418	L	4	18 (19 x 30)	27	.215″	119.75	897.00#	897.00
89503	M	3	24 (7 x 32)	20	.197″	115.15	863.00#	863.00
89504	M	4	24 (7 x 32)	20	.220″	125.00	1050.00#	1050.00
89505	M	5	24 (7 x 32)	20	.233″	151.50	1365.00#	1365.00
INDIVIDUALLY SHIELDED PAIRS								
88723	N	4	22 (7 x 30)	31	.180″	$ 91.85	$ 689.00#	$ 689.00
88777	O	6	22 (7 x 30)	31	.252″	125.00	1044.00#	1044.00
UNSHIELDED								
88442	P	2	22 (7 x 30)	..	.157″	$ 59.15	$ 441.00#	$ 441.00
89740	P	2	18 (19 x 30)	..	.175″	79.55	596.00#	596.00
88444	P	4	22 (7 x 30)	..	.184″	83.30	624.00#	624.00
88489	P	4	18 (19 x 30)	..	.214″	113.20	849.00#	849.00
88741	P	2	22 (7 x 30)	..	.182″	102.10	765.00#	765.00
88742	P	3	22 (7 x 30)	..	.218″	114.15	855.00#	855.00
88757	P	4	22 (7 x 30)	..	.278″	125.00	1110.00#	1110.00
88743	P	6	22 (7 x 30)	..	.286″	172.95	1572.00#	1572.00

#Per 1000 ft.

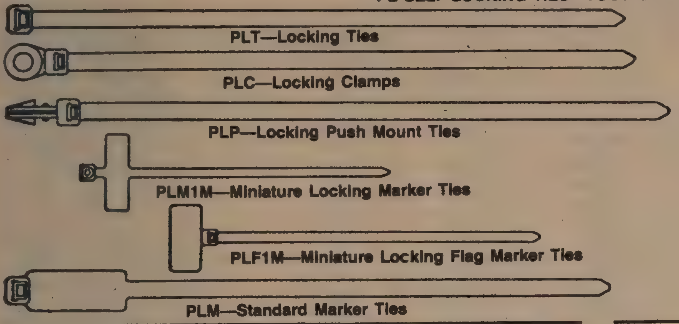


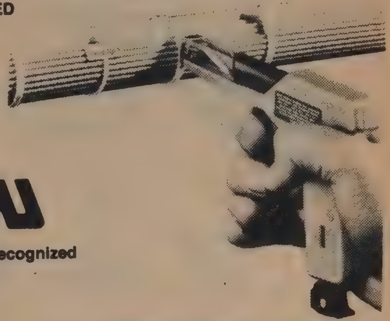
PANDUIT CORP.

Wiring Products

PAN-TY® ONE PIECE CABLE TIES, CLAMPS, PUSH MOUNT TIES AND MARKERS

PL SELF-LOCKING TIES—TOOL OR HAND INSTALLED


PLT—Locking Ties
PLC—Locking Clamps
PLP—Locking Push Mount Ties
PLM1M—Miniature Locking Marker Ties
PLF1M—Miniature Locking Flag Marker Ties
PLM—Standard Marker Ties



U.L. Recognized

Panduit Number	Max. Bundle Dia.	Approx. Length	Std. Pkg.	Std. Ctn.	Net per 100 Std. Pkg.	Net per 100 Std. Ctn.
PLT1M-C	¾″	3⅞″	100	1000	$4.80	$3.84
PLT1.5M-C	1¼″	5½″	100	500	4.99	3.99
PLT1.51-C	1¼″	5½″	100	1000	5.71	4.57
PLT1.5S-C	1½″	6⅜″	100	500	7.06	5.65
PLT2M-C	2″	8″	100	500	5.69	4.56
PLT21-C	2″	8″	100	500	6.78	5.48
PLT2S-C	1¾″	7⅜″	100	1000	7.23	5.79
PLT31-C	3″	11½″	100	500	11.81	9.44
PLT3S-C	3″	11½″	100	500	14.22	11.38
PLT41-C	4″	14½″	100	500	15.07	12.06
PLT4S-C	4″	14½″	100	500	16.70	13.38
PLT4H-L	4″	14½″	50	500	23.76	19.01
PLT8H-L	9″	30⅝″	50	500	46.38	37.11

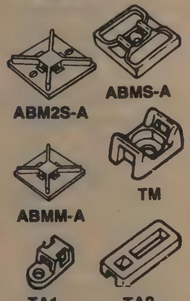
Panduit Number	Max. Bundle Dia.	Approx. Length	Std. Pkg.	Std. Ctn.	Net per 100 Std. Pkg.	Net per 100 Std. Ctn.
PLC1M-S4-C	¾″	4⅜″	100	500	8.54	6.83
PLC1.5I-S8-C	1¼″	6⅛″	100	500	9.83	7.86
PLC2S-S6-C	1¾″	7⅞″	100	500	10.96	8.76
PLC2S-S10-C	1¾″	7½″	100	500	10.96	8.76
PLC4H-S25-L	4″	15¼″	50	500	34.97	27.98
PLP1.5I-C	1¼″	6⅛″	100	500	10.18	8.14
PLP2S-C	1¾″	7⅞″	100	500	11.80	9.43
PLM1M-C	¾″	4″	100	500	10.51	8.40
PLF1M-C	¾″	4⅜″	100	500	10.51	8.40
PLM2M-C	2″	8″	100	500	12.29	9.83
PLM2S-C	1¾″	7¼″	100	500	21.14	16.92
PLM4S-C	4″	14½″	100	500	27.17	21.74

Colors: Standard color, natural nylon white; other colors available. 10% additional price.

Applicable Parts
U.L. Recognized

ACCESSORIES

CABLE TIE MOUNTS



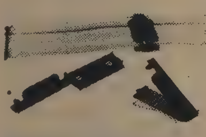
Panduit Number	Mtg.	Uses Tie*	Std. Pkg.	Std. Ctn.	Net per 100 Std. Pkg.	Net per 100 Std. Ctn.
ABMM-A-C	Adh.	M	100	500	$29.07	$23.26
ABM2S-A-C	Adh.	M, I, S	100	500	33.31	26.64
ABMS-A-C	Adh.	M, I, S	100	500	38.11	30.48
TM1S6-C	#6	M	100	500	6.97	5.55
TM2S8-C	#8	M, I, S	100	500	9.38	7.51
TM3S10-C	#10	M, I, S, H	100	500	17.40	13.92
TMEH-S25-QO	¼	All	25	250	44.55	35.65
TA1S8-C	#8	M, I, S	100	500	9.34	7.49
TA2-C	#10	M, I, S	100	500	9.29	7.43
TP2-C	#10	M, I, S	100	500	9.29	7.43
TP4H-C	¼	M, I, S, H	100	500	37.85	30.28

*Cross section; M = Min.; I = Int.; S = Std.; H = Heavy; All = All, including Extra-Heavy.

CLINCHER™ ADJUSTABLE RELEASABLE CLAMP

For wire bundles $^3/_{16}$″ up to $^{11}/_{16}$″ O.D. Self-locking.

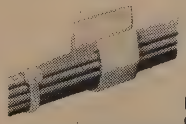
Panduit No. ARC-	Mtg.	Std. Pkg.	Std. Ctn.	Net per 100 Std. Pkg.	Net per 100 Std. Ctn.
68-A-Q14	Adhsv.	25	250	$45.67	$36.51
68-S6-Q14	Screw	25	250	27.92	22.33



FLAT CABLE MOUNT

Clamps flat cable up to 2″ wide. Self-locking.

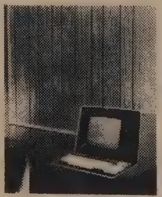
Panduit No. FCM-2	Mtg.	Std. Pkg.	Std. Ctn.	Net per 100 Std. Pkg.	Net per 100 Std. Ctn.
A-C14	Adhsv.	100	500	$41.71	$33.35
S6-C14	Screw	100	500	38.34	30.68



ADH. BACKED CORD CLIPS

Holds cords, tubing, cable or wiring harness

Panduit Number ACC-	Nom. Dia.	Std. Pkg.	Std. Ctn.	Net per 100, Std. Pkg.	Net per 100, Std. Ctn.
19-A-C	.190″	100	1000	$16.93	$13.56
38-A-C	.380″	100	1000	19.89	15.90
62-A-C	.620″	100	1000	27.14	21.70

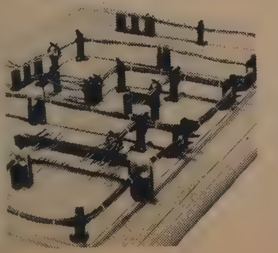


ADH. BACKED LATCHING DUCT*

Used to route and contain wires.

- Available in 5 colors—Lt. Gray, White, Black, Brown, Beige.
- Supplied in 6-ft. lengths.
- Fittings available to speed installation.

COMPLETE LINE OF HARNESS BOARD ACCESSORIES AVAILABLE



CABLE TIE INSTALLATION TOOLS

STS: Installs Min., Int. and Std. ties, Net................$9.75
STH: Installs Std. and Hvy. ties. Net......................$10.25

STEH: Installs Std., Hvy. and Extra Hvy. ties. Rugged, all steel construction.
Net.............................$29.90

Tool Controlled tensioning and Cut-Off.
GS2B*: Installs Min., Int. and Std. ties. Meets MIL Std. MS90387-1.
GS4H*: Installs Std. and Hvy. ties. Meets MIL Std. MS90387-2.

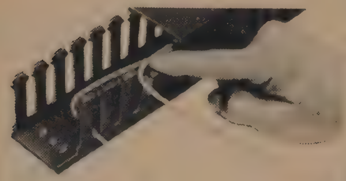
Pneumatic Production Tool
PPTS*: Installs Min., Int. and Std. ties. Operates on 70-80 psi air. Durable and lightweight.

*PRICES ON REQUEST

PANDUIT CORP.

Wiring Products

PANDUCT® PLASTIC WIRING DUCT



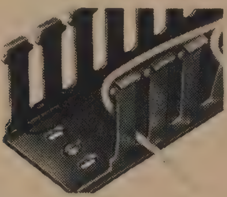
U.L. Recognized

C.S.A. Certified

- Patented snap-in slot design
- Eliminates threading wires through duct holes
- Wires may be inserted with terminations attached
- Meets J.I.C. requirements
- PVC Material

OTHER DESIGN FEATURES:

- Scored Sidewalls
- Universal Mounting Holes
- Each Size Available Adh. Backed
- Non-Slip Cover



ALSO AVAILABLE:

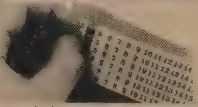
Notching Tool, Rivet and Installation Tool, Wire Retainers, Corner Strip and Installation Accessories.

Standard length, 6 ft. Standard color, LG (light gray); WH (white) and DG (dark gray) available.

Duct Part Number	Nom. Size W" × H"	Net per Foot	Cover Part Number	Nom. Width"	Net per Foot
E .5 × .5LG6	½ × ½	$0.98	C .5LG6	½	$0.28
E .5 × .62LG6	½ × ⅝	1.06			
E .5 × 1LG6	½ × 1	1.18			
E .5 × 1.25LG6	½ × 1¼	1.32			
E .5 × 1.75LG6	½ × 1¾	1.52			
E .5 × 2LG6	½ × 2	1.71			
E .75 × .75LG6	¾ × ¾	1.18	C .75LG6	¾	.30
E .75 × 1LG6	¾ × 1	1.25			
E .75 × 1.5LG6	¾ × 1½	1.52			
E .75 × 2LG6	¾ × 2	1.84			
E 1 × 1LG6	1 × 1	1.27	C 1LG6	1	.36
E 1 × 1.25LG6	1 × 1¼	1.40			
E 1 × 1.5LG6	1 × 1½	1.56			
E 1 × 2LG6	1 × 2	1.78			
E 1 × 3LG6	1 × 3	2.26			
E 1 × 4LG6	1 × 4	2.80			
E 1.5 × 1LG6	½ × 1	1.48	C 1.5LG6	1½	.43
E 1.5 × 1.5LG6	1½ × 1½	1.78			
E 1.5 × 2LG6	1½ × 2	1.96			
E 1.5 × 3LG6	1½ × 3	2.45			
E 1.5 × 4LG6	1½ × 4	2.93			
E 2 × 1LG6	2 × 1	1.72	C 2LG6	2	.55
E 2 × 1.5LG6	2 × 1½	1.80			
E 2 × 2LG6	2 × 2	1.97			
E 2 × 2.5LG6	2 × 2½	2.20			
E 2 × 3LG6	2 × 3	2.53			
E 2 × 4LG6	2 × 4	2.97			
E 2.5 × 3LG6	2½ × 3	2.63	C 2.5LG6	2½	.65
E 3 × 1LG6	3 × 1	1.96	C 3LG6	3	.78
E 3 × 1.25LG6	3 × 1¼	2.26			
E 3 × 2LG6	3 × 2	2.35			
E 3 × 3LG6	3 × 3	2.92			
E 3 × 4LG6	3 × 4	3.48			
E 3 × 5LG6	3 × 5	4.41			
E 4 × 1.5LG6	4 × 1½	2.35	C 4LG6	4	.97
E 4 × 2LG6	4 × 2	2.63			
E 4 × 3LG6	4 × 3	3.19			
E 4 × 4LG6	4 × 4	3.96			
E 4 × 5LG6	4 × 5	5.26			

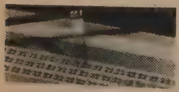
PANDUIT® IDENTIFICATION PRODUCTS

INSTA-CODE® WIRE MARKERS★



General purpose cloth markers supplied on convenient dispenser cards. (Full and half sizes.)

- Solid Numbers
- Consecutive Nos.
- Solid Symbols
- Solid Letters
- Consecutive Ltrs.
- Solid NEMA Colors



VINYL SELF-LAMINATING (CARDS)

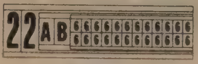
- Solid Numbers
- Consecutive Nos.
- Blank, write-on
- Solid Letters
- Consecutive Ltrs.

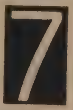
LARGE NUMBERS & LETTERS

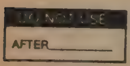
Vinyl Cloth—¼", ⅜", ⅝", 1", 2", and 3" sizes.

Vinyl—1" and 2" sizes.

Reflective Vinyl—1½", 2" and 2½" sizes.



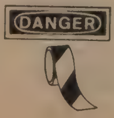




PRE-TITLED INDUSTRIAL MARKERS

- Write-on; Multi-Colored.
- ⅝" × 1½".
- 12 Legends Available.

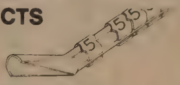
SAFETY SIGNS AND TAPE



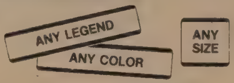
- 2¼" × 9" or 2¼" × 4½" signs.
- Tape—Solid, Striped or Checkered. 2" × 3" widths.

★PRICES ON REQUEST

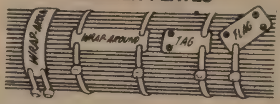
CLIP-ON MARKERS



- Acetal Material
- Seven Sizes From .075" to .617" Dia.
- Grooved Interlock Clips.
- Application Wand Included.



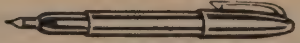
MARKER PLATES



- 100% Nylon
- Attached with cable ties

Panduit Number	Size, Ins.	Std. Pkg.	Net/100 100-400
MP150-C	1½ × ¾	100	$20.69
MP175-C	1¾ × ¾	100	21.43
MP200-C	2 × ¾	100	22.40
MP250-C	2½ × ¾	100	24.43
MP350-C	3½ × ¾	100	28.29
MP250W175-C	2½ × 1¾	100	43.69

MARKING PENS

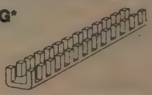


- Used to permanently mark nylon marker ties and plates
- Fast drying

Panduit Number	Tip Style	Color	Net Each
PFX-0	Fine	Black	$2.65
PFX-2	Fine	Red	2.65
PX-O	Reg.	Black	2.65
PX-2	Reg.	Red	2.65
PX-10	Reg.	White	3.78

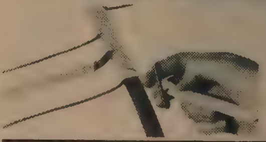
FLEXIBLE GROMMET EDGING*

Eliminates abrasion of wire insulation passing through holes in metal panels. Meets MIL STD. MS21266



Panduit Number	MIL STD. Part Number	For Panel Thickness	Pkg. Size
GE52-C	MS21266-1N	.015—.052	100
GE85-C	MS21266-2N	.053—.085	100
GE128-C	MS21266-3N	.086—.128	100
GE192-L	MS21266-4N	.128—.192	50
GE255-L	MS21266-5N	.195—.255	50
GE318-L	MS21266-6N	.255—.318	50
GE380-Q	MS21266-7N	.318—.380	25
GE510-Q	MS21266-8N	.318—.510	25

SPIRAL WRAPPING



U.L. Recognized

Panduit Number	Bundle Range Inches	Pkg. Size Feet	Net/ 100-2100'
POLYETHYLENE			
T12F	$^1/_{16}$-½	500	$ 9.73
T25F	$^3/_{16}$-2	100	16.74
T50F	¾-4	250	37.31
FLAME RETARDANT POLYETHYLENE			
T12R	$^1/_{16}$-½	500	$11.74
T25R	$^3/_{16}$-2	100	24.68
T50R	¾-4	250	54.28
HEAT STABILIZED NYLON			
T12N	$^1/_{16}$-½	500	$ 18.72
T25N	$^3/_{16}$-2	100	37.62
T50N	¾-4	250	103.98

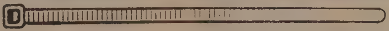
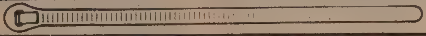
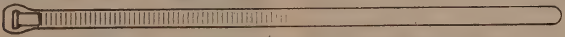
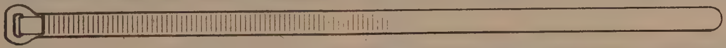
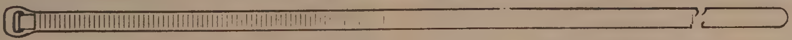
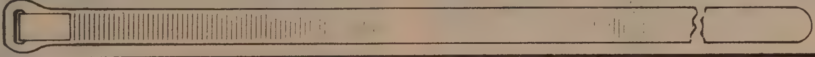
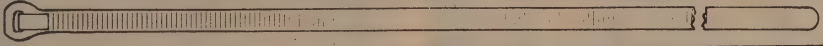
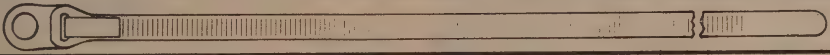
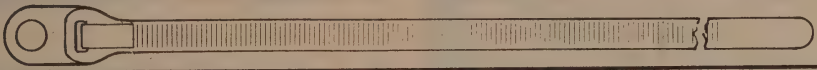
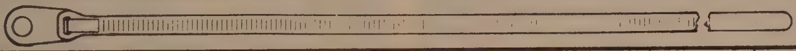
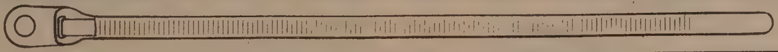
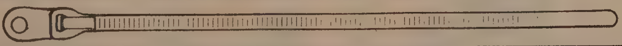
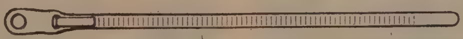
waldom Speedy-Tys® Cable Ties

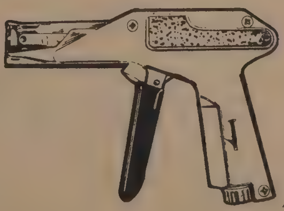
STANDARD SELF-LOCKING TIES

Compact, one-piece design. Rugged nylon construction; no metal parts. Designed to exceed MIL-S-23190. Self-locking head; will not loosen when pulled tight. Easy application by tool or hand. Installation tool automatically cuts off excess tie for low-profile configuration with no protruding edges. Releasable locating tip. Double-bend tip locates around wires; guides operator's hand for easy 90° insertion, even in confined areas. Second bend prevents snagging. Tip can be inserted in head and later released. Makes for easier positioning of ties on wire bundle. Wide bundle-gripping serrations hug wires tightly; won't pierce wire insulation as string or narrower ties often do. All-environment nylon (MIL-M-20693). Tough, resistant to temperature extremes, diluted acids, solvents, grease, alkalies and fungus growth. Speedy-Tys can be color coded as per Military Specification; information on request. Available in a variety of sizes.

SELF-LOCKING TIES WITH MOUNTING CLAMPS

Same as standard self-locking ties, except with mounting clamp. All one-piece construction. Quickly attaches to panel or chassis with screw, rivet or bolt.

Waldom Part No.	Hole Dia./ Screw Size	Type	Size (Ins.)		Bundle Diameter (Ins.)	Meets Military Standards	Minimum Loop Tensile Strength (MIL-S-23190) (Lbs.)	Use Cable Tying Tool Catalog Number	Net per 100
			Length	Width					
 65001	....	Miniature	3.7	0.085	1/16-3/4	MSS-3367-4	18	65098	$ 3.30
 65002	....	Miniature	4.0	0.100	1/16-5/8	MS-3367-4	18	65098	4.60
 65003	....	Intermediate	5.3	0.145	1/16-1 1/4	MS-3367-5	30	65098	5.50
 65004	....	Standard	6.9	0.187	1/16-1 3/4	MS-3367-1	50	65098, 65099	6.10
 65005	....	Intermediate	10.8	0.145	1/16-3	....	30	65098	14.80
 65006	....	Large	13.0	0.300	1/16-3 1/2	MS-3367-3	120	65099	26.10
 65007	....	Standard	13.9	0.187	1/16-4	MS-3367-2	50	65098, 65099	16.80
 65055	.198"/#10	Standard	14.4	0.187	1/16-4	....	50	65098, 65099	28.10
 65054	.260"/1/4"	Large	13.6	0.300	3/16-3 1/2	....	120	65099	28.10
 65053	.173"/#8	Intermediate	11.3	0.145	1/16-3	....	30	65098	21.60
 65052	.198"/#10	Standard	7.4	0.187	1/16-1 3/4	....	50	65098, 65099	10.40
 65051	.173"/#8	Intermediate	5.8	0.145	1/16-1 1/4	....	30	65098	8.80
 65050	.120"/#4	Miniature	4.4	0.100	1/16-5/8	....	18	65098	7.00



TENSION-CONTROLLED APPLICATION TOOL

Tension-controlled tool tightens tie around wire bundle, then cuts tie flush; leaves no projections. Tool retains scrap until trigger is released. Rugged, die-cast aluminum provides long service life. Tension is easy to adjust. Detent locking action holds at each setting; can be locked for quality control. Easy-to-read tension gauge immediately identifies proper setting. Easy three-step installation. 1—Place tie around wire bundle. 2—Insert tie tip through head and pull tight around wire bundle. 3—Lock in place with tension-controlled tool.

Waldom No. 65098 Application Tool—Net Each **$59.95**
Waldom No. 65099 Application Tool—Net Each **59.95**

AMPROBE® Test Instruments

AMPROBE ROTARY-SCALE CLAMP-ON INSTRUMENTS

Portable, hand-held instruments with clamp-on jaws permit current readings without interrupting service. Rotary scale minimizes chance of reading error. 1,000 ampere models designed for up to 2" diameter conductors; other models accept conductors up to 1" diameter. Extendo-type test leads (standard on "RS-A" models) make voltage readings faster and easier. Pointer lock permits you to take readings in hard-to-reach or darkened areas, lock the pointer, then read where it's convenient. Recessed, break-resistant window magnifies scale; makes readings easier and reduces possibility of static electricity buildup. Leads lock in; can't be accidentally pulled out, leaving high voltage exposed.

OHB-3R external battery attachment with 8AG-361 fuse supplied with ohmmeter versions. Attachment uses one size "AAA" battery (not supplied). Models RS-1000S and RS-1007S have built-in, manually-set, surge indicating capability; measure starting current surges and voltage increases lasting 1/6 second or longer. Instrument supplied with test leads and carrying case.

SPECIFICATIONS

Size: Models RS-1(A) thru RS-300(A), 2 15/16" w. × 7 3/32" h. × 1 11/32" d.; Models RS-1000(S) and RS-1007(S), 3 3/16" w. × 8 5/8" h. × 1 11/32" d.
Weight: Models RS-1 thru RS-300, 10 oz.; Models RS-1000(S) and RS-1007(S), 12 oz.
Accuracy: ±3% full scale, unless otherwise specified (based on sinusoidal waveform). RS-7/7A, ±4% full scale when used with recording module LRS-7R/7RT. Ohmmeter, ±3% of scale length. **Frequency:** All instruments RS-3 400 Hz calibrated for 60 Hz operation only; RS-3 400 Hz is calibrated for 400 Hz for maritime and aircraft industries.

Amprobe Model	AC Ranges		Case	Net Each
	Amps	Volts		
	AC VOLT-AMMETERS			
RS-1	0-6/15/40/100	0-150/600	Std.	**$68.50**
RS-1A*	0-6/15/40/100	0-150/600	Dlx.	**76.50**
RS-2	0-6/15/40/100	0-150/300	Std.	**68.50**
RS-2A*	0-6/15/40/100	0-150/300	Dlx.	**76.50**
RS-300	0-6/15/40/100/300	0-150/300/600	Std.	**81.85**
RS-300A*	0-6/15/40/100/300	0-150/300/600	Dlx.	**89.85**
	AC VOLT-AMP-OHMMETERS (25 OHMS MIDSCALE)			
RS-1B	0-6/15/40/100	0-150/600	Std.	**77.85**
RS-1BA*	0-6/15/40/100	0-150/600	Dlx.	**85.85**
RS-3	0-6/15/40/100/300	0-150/300/600	Std.	**85.85**
RS-3 400 Hz	0-6/15/40/100/300	0-150/300/600	Std.	**124.85**
RS-3A*	0-6/15/40/100/300	0-150/300/600	Dlx.	**93.85**
RS-7†	0-5/25/50/100/250	0-150/300/600	Std.	**95.85**
RS-7A†*	0-5/25/50/100/250	0-150/300/600	Dlx.	**103.85**
RS-1000	0-15/40/100/300/1000	0-150/300/600	Std.	**114.85**
RS-1000S	0-15/40/100/300/1000	0-150/300/600	Std.	**118.85**
RS-1007	0-15/40/100/300/1000	0-150/300/750	Std.	**114.85**
RS-1007S	0-15/40/100/300/1000	0-150/300/750	Std.	**118.85**

†Have volt/amp output jack for connecting accessory recording module LRS-7R. *Supplied with Extendo leads. ‡Prices on request.

AMPROBE TEST MASTER KITS

TM43A

TM-63

Kits contain RS-3 instrument, extendo-type test leads, energizer A-47L and carrying case. Energizer permits readings as low as 0.6 amps; also effectively "splits" 2-conductor line cord. Model TM-43A also contains PSA-1 phase sequence adapter to help determine phase sequence of 3-phase circuits, and A50-1 Deca-Tran® current measuring expander to expand current measuring capability by 10 times (up to 1200 amps int. duty).
Amprobe Model TM-63 Test Master Kit—Net Each **$109.85**
Amprobe Model TM43A Test Master Kit—Net Each . . . **$209.85**
Amprobe Model TM-60—Same as Model TM-63, except without Instrument. Net Each **$32.85**
Amprobe Model TM-33A—Same as Model TM-43A, except without phase sequence adapter. Net Each **$184.85**

AMPROBE DIGITAL CLAMP-ON VOLT-AMP-OHMMETERS

Portable, hand-held volt-amp-ohmmeter, designed for one-hand operation. Large, easy-to-read, digital readout virtually eliminates reading errors. Circuit design prevents digit flickering. Auto-ranging for simplicity of operation. Over-range and low-battery indications. Measures AC volts, AC amps and ohms from 0.1 to 999. "Continuous"* or "peak" readings. Withstands momentary overloads up to 50%. Fuse protected ohmmeter (fuse in test lead). Measures motor starting surge current and other surges and peaks. Accurately measures low resistances, such as motor windings, etc. Clamp-on jaws accept up to 2" diameter conductors. Extendo-type leads. *ACD-2, 300 amps.

SPECIFICATIONS

Ranges: ACD-1—AC Volts/AC amps/Ohms, 0.1-999. ACD-2—AC Volts/Ohms, 0.1-999; AC amps, 0.1-300 continuous, 0.1-999 Peak. All readings below 100 are shown to the nearest tenth; e.g., 68.7. DC voltage may be measured by using a multiplying factor.
Accuracy: ±2%, ±1 LSD (least significant digit) of reading. Accuracy of volts and amps based on 25-400 Hz sinusoidal waveform.
Digit Height: 7/16".
Over-Range Protection: 50% voltage and current overload for a maximum of 1 minute; ohmmeter is fused.
Case Voltage Breakdown Test: 3.000 VAC.
Operating Temperature: +32° F to +120° F up to 95% R.H.
Ohmmeter Test Voltage: 1.2 V max. (6 mA, low range; 0.6 mA high range).
Fuse: 8AG-361, 1 Amp. fast-blow.
Power Required: 9 volt alkaline battery (not supplied).
Battery Life: Based on test cycle of 10 seconds "on" and 20 seconds "off", 22.2 hours or 2,700 cycles; based on test cycle of 20 seconds "on" and 1 minute "off", 30 hours or 1,350 cycles.
Jaw Capacity: ACD-1, 2" diameter conductor; ACD-2, 1".
Unit supplied with AE carrying case, DTL-2 all-weather test leads, MTC-2 alligator clip adapter and OHB-4 fused ohmmeter test lead with 8AG-361 fuse.
Amprobe Model ACD-1 Digital Clamp-On Meter—Net Each **$179.85**
Amprobe Model ACD-2 Digital Clamp-On Meter—Net Each **$169.85**
Amprobe Model TACD-1 Kit—Contains ACD-1 in deluxe carrying case and A-47L energizer. Net Each **$209.85**
Amprobe Model TACD-2 Kit—Contains ACD-2 in deluxe carrying case and A-47L energizer. Net Each **$199.85**

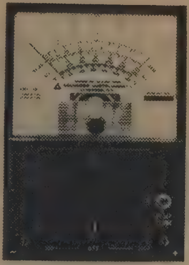
ACCESSORIES

Amprobe Model	Description	Net Each
	ROTARY SCALE CLAMP-ON INSTRUMENTS	
A	Deluxe case for RS models (except 1000 amp)	**$13.50**
G	Std. case for RS models (except 1000 amp)	**10.85**
E	Case for 1000 amp RS models	**12.85**
U	Attache case for TM-33A and TM-43A	**40.85**
OHB-3R	Ohmmeter attachment for RS ohmmeter versions	**6.75**
912	AAA size battery for OHB-3R	**.55**
8AG-361	1 amp fuse (fast blow) for OHB-3R	**.65**
VL11R	Clip-type leads for RS models	**5.25**
PT	Repl. probe tips for VL11R leads (pkg. of 4)	**.85**
VLK-411R	Extendo lead set for RS models (except 1000 A)	**7.85**
VLK-100R	Extendo lead set for 1000 amp RS models	**8.25**
VPT	Repl. probe tips for Extendo leads (pkg. of 4)	**.95**
VRC-320	Alligator clip adaptor for use on VPT tips	**1.95**
A50-1*	Deca-Tran® 10 to 1 transformer	**62.85**
A-47L*	Energizer	**13.95**
CT50-1*	Amptran® flexible link 50 to 1 transformer	**314.85**
CT50-2*	Amptran® flexible link 50 to 1 transformer	**199.85**
VL750R	750 volt multiplier lead	**7.50**
LRS-7R*	Recording module for RS-7 and RS-7A	**119.85**
LSS-7RT*	Recording module for RS-7 and RS-7A	**194.85**
	DIGITAL CLAMP-ON INSTRUMENTS	
AE	Std. case for ACD-1	**$13.85**
AE-2	Std. case for ACD-2	**13.85**
AD	Deluxe case for ACD-1 and ACD-2	**25.50**
DTL-2	All-weather test lead set for ACD-1	**6.25**
DTL-3	All-weather test lead set for ACD-2	**6.25**
VRC-320	Alligator clip adaptor for DTL leads	**1.95**
VPT	Repl. probe tips for DTL leads	**.95**
OHB-4	Fused ohmmeter test lead	**6.75**
8AG-361	1 amp fuse (fast blow) for OHB-4	**.65**
MN-1604	9 volt alkaline battery	**1.95**
CT50-1*	Amptran® flexible-link 50 to 1 transformer	**314.85**
CT50-2*	Amptran® flexible-link 50 to 1 transformer	**199.85**
A-47L*	Energizer	**13.95**

*See complete description of accessories, listed elsewhere on these pages.

AMPROBE® Test Instruments

AMPROBE INDUSTRIAL MULTIMETERS



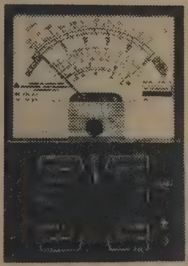
MODEL AM-1A

Easy-to-read, four color coded scale plate. Sixteen practical ranges for industrial use. 5 ohm mid-scale ohmmeter. Two millivolt ranges. Temperature capability. Taut band meter movement. Overload protective circuitry. "Off" position on range switch. All ranges fuse protected or can withstand momentary misapplication of up to 220 volts (except R × 10 and 60 mV). Molded, fully insulated case. Compact, light-weight. All-weather test leads (supplied).

SPECIFICATIONS

AC Voltage Ranges: 0-30/150/300 VAC (9.000 ohms/volt); 0-750 VAC range can be added through use of MTL5X multiplier lead (not supplied). Also see 15 KV Probe listing.
DC Voltage Ranges: 0-3/15/30/300 VDC (20,000 ohms/volt).
DC Millivolt Ranges: 0-60/1200 mV at 50 μA.
DC Current Ranges: 0-30/150 mA at 300 mV.
Resistance Ranges: R×1/R×10/R×100/R×1K.
Temperature Range: +70° F to +1200° F, using TC-3 thermocouple (not supplied).
Accuracy: DC, ±3% full scale; AC, ±4% full scale; Ohms, ±3% of arc; Temperature, ±2% full scale.
Ohmmeter Power: Four "AA" batteries in parallel (not supplied).
Fuse: 8AG-361, 1 Amp, fast-blow.
Size: 3 1/2" w. × 5" h. × 2" d.
Weight: 14 oz. (less batteries and accessories).
Supplied with MTL-1 all-weather test leads and MTC-2 alligator clip adapters.

Amprobe Model AM-1A Industiral Multimeter—Net Each **$42.95**



MODEL AM-2A

Taut band meter movement with overload protective circuitry. All ranges are fuse protected or can withstand the misapplication of up to 220 volts. Compact, lightweight.

SPECIFICATIONS

DC Voltage Ranges: 0-2.5/10/50/250/1000 (20,000 ohms per volt).
AC Voltage Ranges: 0-10/50/250/500/1000 (9,000 ohms per volt).
DC Current Ranges: 0-50μA; 0-25/250 mA (at 280 mV).
Resistance Ranges: R × 1/ R × 10/ R × 100.
Accuracy: DC, ±3% full scale; AC, ±4% full scale; Resistance, ±3% of arc.
Ohmmeter Power: One "AA" cell (not supplied).
Size: 3 1/2" w. × 5" h. × 2" d.
Weight: 13 ozs.
Instrument supplied with test leads.

Amprobe Model AM-2A Multimeter—Net Each **$32.95**

MODEL AM-2DP DROP PROOF

Same size and appearance as AM-2A. Compact, drop proof, lightweight, general purpose multimeter with meter movement overload protective circuitry. Taut band movement. All ranges are fuse protected, or can withstand momentary misapplication of 220 volts. Supplied with test leads.

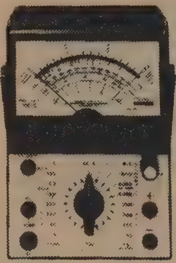
SPECIFICATIONS

AC Voltage Ranges: 0-10/50/250/500/1000 VAC (9,000 ohms volt).
DC Voltage Ranges: 0-2.5/10/50/250/1000 VDC (20,000 ohms/volt).
DC Current Ranges: 0-50 μA at 280 mV; 0-25/250 mA at 280 mV.
Resistance Ranges: R×1, R×10, R×100.
Accuracy: DC, ±3% full scale; AC, ±4% full scale; Ohms, ±3% of arc.
Ohmmeter Power: One "AA" battery (not supplied).
Size: 3 1/2" w. × 5" h. × 2" d.
Weight: 13 oz.

Amprobe Model AM-2DP Multimeter—Net Each **$46.85**

ACCESSORIES FOR AM-1A, AM-2A, AM-2DP

Amprobe Model	Description	Net Each
MM	Carrying case	$ 7.85
MTL-1	All-weather test leads	5.50
MTC-2	Alligator clip adaptor	1.90
MTL-5X	750 VAC lead for AM-1A	7.85
HV-2	High voltage probe (15 KV)	18.85
HVR-1	Resistor for 15 KVAC range (use with HV-2)	7.50
HVR-1D	Resistor for 15 KVDC range (use with HV-2)	7.50
HVPT	Repl. probe tip for HV-2	1.00
TC-3	Thermocouple for AM-1A	29.50
S915	AA size battery	.50
8AG-361	1 amp fuse (fast blow) for AM-1A	.65
3AG-312	0.3 amp fuse for AM-2A, AM-2DP	.65



MODEL AM-3B

Rugged multimeter designed for industrial use. Easy-to-read, three-color coded scale and switch plate. Mirror scale for reading accuracy. Diode-protected, taut-band meter movement. All ranges fuse protected, or can withstand momentary misapplication of 220 volts for 1/2 minute. Recessed glass window reduces possibility of scratches and static electricity build-up. All-weather test leads (supplied). High-impact plastic molded case; fully insulated. Self locking meter stand handle.

SPECIFICATIONS

AC Voltage Ranges: 0-30/150/300/750 (10,000 ohms/volt).
DC Voltage Ranges: 0-3/30/150/300 (100,000 ohms/volt).
DC Millivolt Ranges: 0-75/750/1500 mV at 10 μA.
AC Current Ranges: 0-6000 Amps, in 8 ranges, using appropriate accessories (not supplied).
DC Current Ranges: 0-15/150 μA at 300 mV; 0-1.5/150 mA at 300 mV.
Resistance Ranges: R×1/R×10/R×100/R×10K.
Temperature Ranges: Low, −10° F to +250° F; High, +70° F to +1200° F, using appropriate temperature probes (not supplied).
Accuracy: DC, ±3% full scale; VAC, ±4% full scale; AC Current, ±5% full scale, based on sinusoidal waveform; Resistance, ±3% of arc; Low Temperature, ±3% of arc; High Temperature, ±3% full scale.
Ohmmeter Power: 2 "C" batteries in parallel (not supplied).
Fuses: One 8AG-361, 1 Amp, fast-blow and one 3AG-312, 0.1 Amp, fast-blow.
Size: 5 1/4" w. × 7 1/2" h. × 3 1/4" d.
Weight: 2 1/4 lbs.
Instrument supplied with MTL-1 all-weather test leads and MTC-2 alligator clip adapters.

Amprobe Model AM-3B Industrial Multimeter—Net Each **$90.85**
Amprobe Model TAM-3B Test Master Kit—Includes AM-3 multimeter, current transducer, universal temperature probe, thermocouple and deluxe carrying case. Net Each **$204.85**

ACCESSORIES FOR AM-3A

Amprobe Model	Description	Net Each
HV-2	High voltage probe (15 KV)	$18.85
HVR-3	Resistor for 15 KVAC range (use with HV-2)	7.50
HVR-3D	Resistor for 15 KVDC range (use with HV-2)	7.50
HVPT	Repl. probe tip for HV-2	1.00
MTL-1	All weather test leads	5.50
MTC-2	Alligator clip adaptors (pkg. of 2)	1.90
8AG-361	1 amp fuse (fast blow)	.65
3AG-312	0.1 amp fuse (fast blow)	.65
RBT-11B	Immersion temperature probe	15.85
RBT-12B	Universal temperature probe	15.85
RBT-13B	Vented air temperature probe	15.85

AM-6 MULTIMETER

The AM-6 is a low-cost, lightweight multimeter with color-coded scale and switch plates. It covers 12 basic test ranges, is fuse and overrange protected, and can withstand the momentary misapplication of up to 220 volts. **Voltage Ranges:** 0-150/300/600 VAC (2,000 Ohms per volt); 0-30/150/300/600 VDC (2.000 Ohms per volt). **Resistance Ranges:** 0-5K Ohm (50 Ohm mid-scale); 0-50K Ohm (500 Ohm mid-scale); 0-500K Ohm (5K Ohm mid-scale). **Current Ranges:** 0-500 μA/25 mA (DC). **Weight:** 6 1/2 oz. (184 gm.). **Dimensions:** 3 1/16" w. × 4 3/4" h. × 1 9/16" d. **Fuse:** 0.1 A No. 8AG361-6. **Accuracy:** ±3% of full scale DC; ±4% of full scale on AC measurements.

Amprobe Model AM-6—Net Each **$21.50**

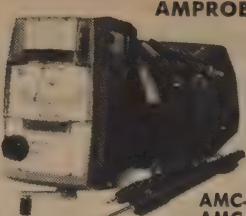
ACCESSORIES FOR AM-6

Amprobe Model	Description	Net Each
MTL-1	All-weather test leads	$5.50
MTC-2	Alligator clip adaptor	1.90
MM-6	Carrying case	6.25
S915	AA size battery	.50
915	AA size battery (pkg. of 4)	1.70
8AG-361-6	0.1 amp fuse	.60

AMPROBE® TEST INSTRUMENTS AND ACCESSORIES

AMPROBE MEGOHMMETERS

AMB-1


AMC-2
AMC-3
AMC-4

Designed to measure high resistance of conductor and motor insulation. Instruments also have a sensitive low ohms range for checking continuity and low resistances of motor windings, relay coils, etc. Three models available. Model AMB-1 is battery powered; Models AMC-2, 3 and 4 have handcranked generators.

MODEL AMB-1

Ideal for resistance measurements of long duration. Battery powered. Live circuit AC/DC voltage test. Battery condition test. Rugged, taut band meter movement; fuse protected. Solid-state circuitry. Mirror scale for reading accuracy. Three-color coded scale plate. Automatic discharge of equipment capacitance for safe removal of test leads. Leak-proof battery compartment. Battery-saving "press-to-read" button. High-impact molded case.

SPECIFICATIONS

Ranges: Megohms, 0-100 (2.5 megohms mid-scale); Ohms, 0-100 (4 ohms mid-scale); 0-600 AC/DC test band; Battery OK test band.
Accuracy: 0.1-10 megohms, ±5% of reading; over 10 megohms, ±10% of reading; Ohms, ±3% of arc.
Power: Eight "AA" batteries (not supplied).
Battery Drain: 50 mA at 1 megohm; translates into over 200 test cycles, based on 1 minute of measuring 1 megohm and 4 minutes off.

MODEL AMB-1 (CONT'D)

Fuse: 8AG-361, 1 Amp, fast-blow (1 spare supplied).
Size: 4.08" w. × 6.25" h. × 2.81" d.
Weight: 1 lb., 3 oz., less batteries.
Supplied with carrying case, test leads, alligator clip adaptors and owner's manual.
Amprobe Model AMB-1 Megohmmeter—Net Each **$189.85**

MODELS AMC-2, AMC-3 AND AMC-4

Hand cranked, constant-voltage generator provides instrument's test voltage. Megohm and ohm ranges. Incorporates a guard terminal to eliminate effect of surface leakage that may influence readings. Spring-loaded terminal connections for solid contact. Sensitive ohmmeter range for measuring motor windings and other low resistances. Rugged, cross-coil movement. High-impact molded case. Supplied with 20-page applications manual, 3-piece test lead set (2 clip type, 1 probe type) and dual carrying cases for instrument and test leads. Two models to choose from.

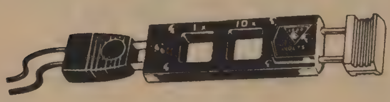
SPECIFICATIONS

Megohm Range: Model AMC-2, 0-100 (1 megohms mid-scale); Model AMC-3, 0-500 (5 megohms mid-scale); Model AMC-4, 0-100 (3 megohms mid-scale) and 0-500 (6 megohms mid-scale).
Test Voltage: Model AMC-2, 500 VDC; Model AMC-3, 1,000 VDC; Model AMC-4, 500 and 1,000 VDC.
Ohms Range: 0-200 (10 ohms mid-scale).
Ohmmeter Power: 6 VDC.
Accuracy: ±5% of reading (AMC-2, 0.1-50 megohms; AMC-3, 0.5-200 megohms; AMC-4, 0.1-50 megohms and 0.5-100 megohms); ±10% of reading at all other points, including ohms ranges.
Size: 4" × 3.625" × 7".
Weight: 2 lbs., 8 oz.
Amprobe Model AMC-2 Megohmmeter—Net Each **$289.85**
Amprobe Model AMC-3 Megohmmeter—Net Each **$365.85**
Amprobe Model AMC-4 Megohmmeter—Net Each **$479.85**

Amprobe multimeters and megohmeters are made in Japan, to Amprobe design and quality specifications.

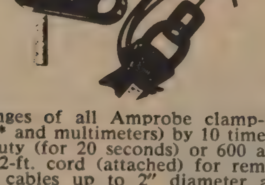
ACCESSORIES

MODEL A-47L ENERGIZER



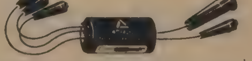
Increases current measuring sensitivity of all Amprobe clamp-on ammeters (including recorders* and multimeters) by 10 times. Effectively "splits" two-conductor line cord for readings, under load, at outlet. **Capacity:** 15 amps continuous duty; 16 to 20 amps for one minute. Optional ground adapter ADP-46 enables the energizer to maintain existing equipment ground to circuit during current measurements of 115 VAC. 15 amp equipment. Carrying case included. *Can not be used with LAA1500(T) or LAW-78(T).
Amprobe Model A-47L Energizer—Net Each **$13.95**
Amprobe Model ADP-45 Series Connection Adaptor—Net Each **$4.75**
Amprobe Model ADP-46 Ground Adaptor—Net Each **$6.75**
Amprobe Model T Carrying Case—Net Each **$1.75**

MODEL A50-1 DECA-TRAN® TRANSFORMER



Extends current ranges of all Amprobe clamp-on ammeters (including recorders* and multimeters) by 10 times, up to 1200 amps intermittent duty (for 20 seconds) or 600 amps continuous duty. Includes 2-ft. cord (attached) for remote readings. Jaws accommodate cables up to 2" diameter and bus bars 3/4" × 2 1/2". Insulated for use on circuits up to 3000 volts; 4200 volts peak. ±3% accuracy. *Can not be used on LAW-78(T) or LAW-79C(T).
Amprobe Model A50-1 Deca-Tran® Transformer—Net Each **$62.85**
Amprobe Model D Carrying Case—Net Each **$8.85**

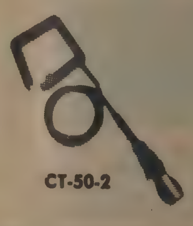
MODEL PSA-1 PHASE SEQUENCE ADAPTOR



For use with Amprobe volt/ammeters (or other voltmeters with appropriate AC range) to determine phase sequence of electrical equipment sing three-phase lines, up to 550 volts, 25 to 60 Hz. Carrying case included.
Amprobe Model PSA-1 Phase Sequence Adaptor—Net Each **$25.85**
Amprobe Model R Carrying Case—Net Each **$6.25**

AMPROBE AMTRAN CT-50-1 AND CT-50-2

CT-50-1

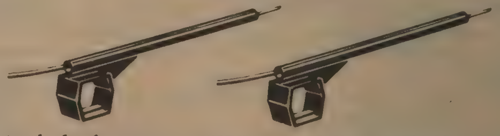

CT-50-2

Model CT-50-1, six link, flexible-link, split-core transformer extends current ranges 50 times. **Rating:** 5,000 Amps AC, continuous duty; 6,000 Amps intermittant duty. Output pick-up coil accommodates jaws of almost all Amprobe Clamp-on instruments and current transducers for Amprobe recorders and multimeters. Model CT-50-2 is similar to Model CT-50-1, except it's a four-link transformer, rated 3,600 Amps intermittant; 3,000 Amps continuous.
Amprobe Model CT-50-1—Net Each **$314.85**
Amprobe Model CT-50-2—Net Each **$199.85**
Amprobe Model ATC Carrying Case—For CT50-1. Net Each **$48.85**
Amprobe Model ATC-2 Carrying Case—For CT50-2. Net Each **$19.85**

MODEL VL-750R HIGH VOLTAGE LEAD

Permits readings up to 750 VAC on any Amprobe rotary-scale clamp-on voltmeter with 150 volt range.
Amprobe Model VL-750R H.V. Lead—Net Each **$7.50**

EXTENDO LEADS

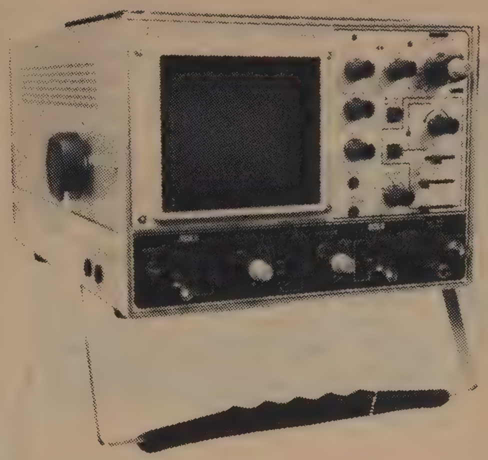


Extendo leads mount on jaws of clamp-on instrument to make voltage measurements easier and faster. Removable probe tips.
Amprobe Model VLK-411R—For 100/250/300 amp RS models. Net per set **$7.85**
Amprobe Model VLK-100R—For 1000 amp RS models. Net per set **$8.25**
Amprobe Model VLK-455R—For Amprobe Junior instruments Net per set **$7.85**
Amprobe Model VPT Replacement Probe Tips—For Extendo leads. Net per pkg. of 4 ..... **$0.95**
Amprobe Model VRC-320 Alligator Clip Adaptor—For VPT tips. Net Each **$1.95**

B+K PRECISION DYNASCAN CORPORATION OSCILLOSCOPES AND PULSE GENERATOR

MODEL 1535AP 35 MHz, DUAL-TRACE, TRIGGERED SWEEP OSCILLOSCOPE

Guaranteed 35 MHz bandwidth and 2 mV/cm vertical sensitivity; typically down only 3 dB at 40 MHz. Easily triggers on signals beyond 50 MHz. Built-in delay line. Alternate trigger capability. Automatic or manual selection of Chop or Alternate dual-trace displays. Variable hold-off for accurate pulse train display. "Single-sweep" feature for photography or observation of non-repetitive waveforms. Video sync separators standard. Built-in triggering filters. PDA CRT with P31 phosphor. Differential input capability. Two 10:1/direct probes included with unit.



VERTICAL AMPLIFIER (Ch. A and Ch. B):
Deflection Factor: 2 mV/cm to 10 V/cm, ±3% in 12 ranges, each with fine adjustment.
Frequency Response: DC, DC to 35 MHz; AC, 5 Hz to 35 MHz, each at −3 dB.
Rise Time: 11.7 nsec. or less.
Overshoot: 3% or less.
Input Impedance: 1 megohm ±2%, 22 pF ±3 pF.

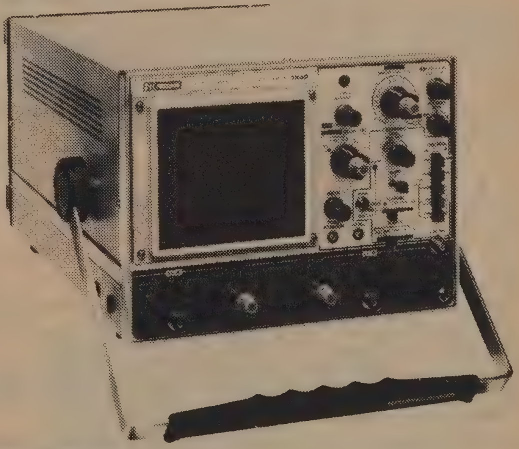
SWEEP SYSTEM (Common to Ch. A and Ch. B):
Type: Automatic, triggered (NORM), single, fix.
Sweep Time: 0.1 μsec./cm to 0.5 sec./cm, ±3% in 22 calibrated steps in a 1-2-5 sequence, with vernier.
Sweep Magnification: x5, ±5%.
Linearity: 3% or better; 10% with 5X magnification.

HORIZONTAL AMPLIFIER—X-AXIS (Input through Ch. B input):
Deflection Factor: 2 mV/cm to 10 V/cm, ±3% in 12 ranges, each with fine adjustment.
Frequency Response: DC, DC to 2 MHz; AC, 5 Hz to 2 MHz, each at −3 dB.
Input Impedance: 1 megohm shunted by 22 pF ±3 pF.
Calibration: Internal 0.1 V p-p square wave at 1 kHz.
Probes: Two 10:1/direct probes supplied with unit.
Power Required: 117/234 VAC, 50/60 Hz, 40 watts.
Size: 7⅜" h. x 10⅛" w. x 14¾" d.
Weight: 22.5 lbs.

B & K Model 1535AP Oscilloscope—With two 10:1/direct probes. Net Each	$950.00
B & K-Precision Model LC-74 Protective Cover—Net Ea.	$36.15
B & K-Precision Model LC-133 Carrying Case—Net Ea.	65.55

MODEL 1530P 30 MHz, DUAL-TRACE, DELAYED-SWEEP OSCILLOSCOPE

Model 1530P dual-trace, 30 MHz oscilloscope features delayed trigger. This feature permits closer examination of any waveform portion by delaying the sweep trigger independent of sweep rate. The interaction of delayed sweep settings and sweep rate can allow the selection of new trigger starting points, thus increasing expandability, through faster sweep rates. Delayed trigger is a major advantage in the evaluation of digital pulse trains and other complex waveforms. Model 1530P also features variable hold-off, which permits synchronization of a complex pulse train. High triggering sensitivity and very flat response allows the 1530P to be used beyond its rated bandwidth. Vertical input sensitivity is 2 mV per division to 20 MHz, and 5 mV per division to 30 MHz.



VERTICAL AMPLIFIER (Channel A and B):
Deflection Factor: 5mV/div to 5 V/div, ±3%; 2 mV/div, ±3%.
Attenuator: 10 steps, 5 mV/div to 5 V/div in 1-2-5 sequence, plus 2 mV/div gain change step. Vernier control.
Frequency Response: DC, DC to 30 MHz; AC, 5 Hz to 30 MHz; 2 mV/div gain change step drops upper limit to 20 MHz.
Rise Time: 11.7 nanoseconds or less; 17.5 nanoseconds at 2 mV/div.
Overshoot: 3% or less.
Input Impedance: 1 megohm shunted by 23 pF, ±3 pF.
Non-Distorted Maximum Amplitude: More than 8 divisions, DC to 30 MHz.
Maximum Input Voltage: 300 V (DC + AC peak), 600 V p-p.
Operating Modes: Ch A, Ch B, Dual, ADD, and subtract (using Ch B invert).

HORIZONTAL AMPLIFIER (Input thru Ch B):
Deflection Factor: Same as vertical amplifier.
Input Impedance: Same as vertical amplifier.
Frequency Response: DC, DC to 2 MHz; AC, 5 Hz to 2 MHz.
X-Y Operation: Ch A is Y-axis and Ch B is X-axis; phase difference, 3° or less at 100 kHz.

SWEEP SYSTEM:
Type: Automatic, triggered (norm), single and fix.
Sweep Time: 0.2 μsec/div to 0.5 sec/div, ±3%, in 20 ranges in 1-2-5 sequence with vernier control.
Sweep Magnification: Five times, ±10%.
Linearity: ±3%.

Delay Time Base:
Delay Time: 1 μsec to 100 msec in 5 ranges with vernier adjustment.
Intensity Modulation: INTEN switch allows portion of sweep after delay to be intensified.
Delay Jitter: Less than 1 part in 10,000.
Probes: Two 10:1/direct probes supplied.
Power Required: 117/234 VAC, 50/60 Hz, 28 watts.
Size: 7⅜" h. x 10⅛" w. x 14¾" d.
Weight: 19 lbs.

B & K-Precision Model 1530P Oscilloscope—With two 10:1/direct probes. Net Each	$875.00
B & K-Precision Model LC-74 Protective Cover—Net Each	$36.15
B & K-Precision Model LC-133 Carrying Case—Net Ea.	65.55

MODEL 3300 5 MHz PULSE GENERATOR

This 5 MHz pulse generator adds adjustable sweep delay to any triggered sweep oscilloscope. Test counter circuits, shift registers. TTL, MOS, CMOS, HINIL, HTL, RTL and ECL logic families. Adjustable input-trigger level for use with arbitrary waveforms and pulse reconstruction. Pulse-burst capability allows convenient testing of counters and shift registers. CSA listed.

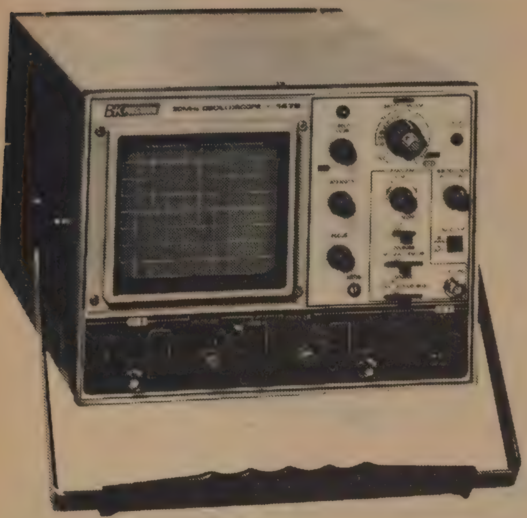
PULSE CHARACTERISTICS:
Pulse Width Range: 100 nsec. to 1 sec. with linear adjustment in 7 decade steps.
Trigger or Pulse Delay: Same as Pulse Width.
Repetition Period Range: 200 nsec. to 1 sec. with linear adjustment in 7 decade steps.
Frequency Response: 5 MHz to 1 Hz.
Trigger Input: Selectable threshold from −18 to +18 V.
Trigger Output: TTL level.
Power Requirements: 105-130 VAC, 60 Hz, 28 watts.
Size: 3.2" h. x 11.3" w. x 7.8" d.
Weight: 3.1 lbs.

B & K Model 3300 Pulse Generator—Net Each	$390.00
Model LC-50 Carrying Case—Net Each	$30.70

B+K PRECISION DYNASCAN CORPORATION

Oscilloscopes

MODEL 1479BP 30 MHz, DUAL-TRACE, TRIGGERED-SWEEP OSCILLOSCOPE WITH SIGNAL DELAY LINE



A dual-trace, 30 MHz, triggered-sweep oscilloscope applicable to servicing computers, music synthesizers, digital data equipment, CB, etc. A rise time of 11.7 nsec or less and a built-in signal delay line permit viewing of high-frequency, short-rise-time pulses. The dual-trace function allows measurement of propogation delay, phase shift, distortion, etc. The 5" CRT permits an 8 x 10 cm screen with a bright, P31 blue phosphor. Frequencies below 10 kHz or above 30 kHz can be attenuated by switchable filters to allow synchronization on complex waveforms without "jitter."

VERTICAL AMPLIFIER (Ch. A and Ch. B):
Deflection Factor: 5 mV/cm to 5 V/cm, ±3% in 10 ranges with fine adjustment on all ranges.
Frequency Response: DC, from DC to 30 MHz; AC, from 10 Hz to 30 MHz; (both at −3 dB).
Rise Time: 11.7 nanoseconds or less.
Overshoot: 3% or less.
Input Impedance: 1 megohm ±2%, 22 pF.
Operating Modes: Ch A, Ch B, Dual, Add.

SWEEP SYSTEM (Common to Ch. A and Ch. B):
Type: Automatic and triggered (NORM).
Sweep Time: 0.2 μsec/cm to 0.5 sec/cm, ±3% in 20 calibrated steps in a 1–2–5 sequence with vernier adjustment.
Sweep Magnification: Five times ±5%.
Linearity: 3% or better.

HORIZONTAL AMPLIFIER (Input thru Ch. B vertical Input):
Deflection Factor: 5 mV/cm to 5 V/cm, ±5% in 10 ranges with fine adjustment on all ranges.
Frequency Response: From DC to 2 MHz (at −3 dB).

Probes: Two 10:1/direct probes supplied.
Power Required: 117/234 VAC, 50–60 Hz, 25 W.
Size: 7⅜" h. x 10⅛" w. x 14¾" d.
Weight: 19.6 lbs.
B & K-Precision Model 1479BP Oscilloscope—With two 10:1/direct probes. Net Each........................**$795.00**
B & K-Precision Model LC-74 Protective Cover–Net Ea.. **$36.15**
B & K-Precision Model LC-133 Carrying Case–Net Ea.. **65.55**

MODEL 1477P 5", 15 MHz, DUAL-TRACE, TRIGGERED-SWEEP OSCILLOSCOPE

A dual-trace, 15 MHz oscilloscope applicable to logic and digital design and troubleshooting. Measure propogation delays and phase shifts. Use A–B mode to compare amplifier input and output waveforms and display algebraic difference as a distortion curve. Features dual display of waveforms, their sum or difference, for fast, easy comparison. Triggered or automatic sweep. TV sync separator circuit for TV-H and TV-V. Vectorscope capability.

VERTICAL AMPLIFIER (Ch. A and Ch. B):
Deflection Factor: 10 mV/cm to 20 V/cm, ±5% in 11 ranges with fine adjustment on all ranges.
Frequency Response: DC, from DC to 15 MHz; AC, from 2 Hz to 15 MHz; (both at −3 dB).
Risetime: 24 nanoseconds.
Overshoot: 3% or less.
Input Impedance: 1 megohm, 22 pF ±3 pF.
Tilt: 5% or less.

SWEEP SYSTEM (Common to Ch. A and Ch. B):
Type: Automatic or triggered.
Sweep Time: 0.5 μsec/cm to 0.5 sec/cm, ±5% in 19 calibrated steps in a 1–2–5 sequence with vernier adjustment.
Sweep Magnification: 5 times.
Linearity: 3% or less.

HORIZONTAL AMPLIFIER (Input thru Ch. B vertical input):
Deflection Factor: .01 V/cm to 20 V/cm, ±5% in 11 ranges with vernier adjustment.
Frequency Response: From DC to 1 MHz (at −3 dB).

Operating Modes: Ch A, Ch B, Dual, Ch A + Ch B (algebraic sum), Ch A − Ch B (algebraic difference).
Internal Calibration: 1.0 V p-p squarewave at 1 kHz.
Probes: Two 10:1/direct probes supplied.
Power Required: 117/234 VAC, 50–60 Hz, 23 W.
Size: 7⅜" h. x 10⅛" w. x 14¾" d.
Weight: 19.6 lbs.

B & K-Precision Model 1477P Dual-Trace Oscilloscope—With two 10:1/direct probes. Net Each..................**$595.00**
B & K-Precision Model LC-74 Protective Cover–Net Ea.. **$36.15**
B & K-Precision Model LC-133 Carrying Case–Net Ea.. **65.55**

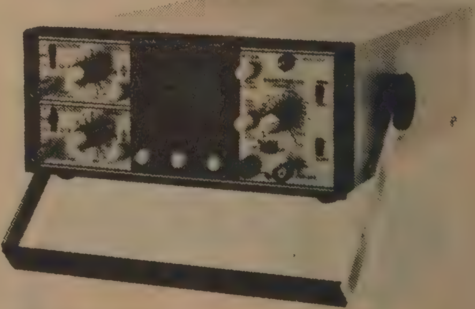
MODEL 1420 15 MHz, DUAL-TRACE, PORTABLE OSCILLOSCOPE

A dual-trace, 15 MHz, portable oscilloscope for self-contained operation on battery power. Up to 2 hour operation per battery charge.

VERTICAL AMPLIFIER:
Deflection Factor: 10 mV/div to 20 V/div in 11 ranges.
Frequency Response: DC, DC to 15 MHz; AC, 10 Hz to 15 MHz.
Rise Time: 24 nanoseconds or less.
Input Impedance: 1 megohm shunted by 22 pF.
Operating Modes: Ch A, Ch B, Dual.

SWEEP SYSTEM (Common to Ch A and Ch B):
Type: Automatic and triggered (norm).
Sweep Time: 1 μsec/div to 0.5 sec/div in 18 ranges in a 1-2-5 sequence with vernier adjustment.
Sweep Magnification: 10 times ±5%.
Linearity: 3% or better.

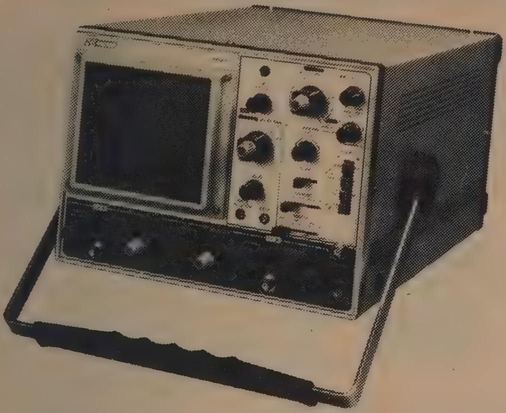
HORIZONTAL AMPLIFIER (Input thru Ch B vertical input):
Deflection Factor: 10 mV/div to 20 V/div in 11 ranges.
Frequency Response: DC, DC to 1 MHz; AC, 10 Hz to 1 MHz.
X-Y Operation: Ch B input becomes X-axis.
Probes: Two 10:1/direct probes supplied.
Power Required: 117 VAC, 60 Hz or 10–16 VDC at 1 amp. Internal 12 VDC battery is charged during AC operation.
Size: 3¼" h. x 7¾" w. x 10½" lg.
Weight: 7.5 lbs. with battery.
B & K-Precision Model 1420 Oscilloscope—With two 10:1/direct probes. Net Each..............................**$795.00**
B & K-Precision Model BP-14 Battery Pak—Net Ea... **$60.35**



B & K-Precision Model CC-20 Cigarette Lighter to DC Plug—Net Each.......................................**$10.95**
B & K-Precision Model LC-20 Carrying Case—Serial No. 75-02000 and lower. Net Each...........................**$42.65**
B & K-Precision Model LC-22 Carrying Case—Serial No. 75-02001 and up. Net Each...............................**$42.65**

B+K PRECISION DYNASCAN CORPORATION Oscilloscopes

MODEL 1525P 20 MHz DUAL-TRACE DELAYED TRIGGER OSCILLOSCOPE



Model 1525P dual-trace, 20 MHz oscilloscope features delayed trigger. This feature permits closer examination of any waveform portion by delaying the sweep trigger independent of sweep rate. The interaction of delayed sweep settings and sweep rate can allow selection of new trigger starting points, thus increasing signal expandability through faster sweep rates. Delayed trigger is a major advantage in the evaluation of digital pulse trains and other complex waveforms. Model 1525P also features variable hold-off, which permits synchronization of a complex pulse train. High triggering sensitivity and very flat response allows the 1525P to be used beyond its rated bandwidth. Vertical input sensitivity is 2 mV per division to 20 MHz.

VERTICAL AMPLIFIER (CH A & CH B):
Deflection Factor: 2 mV/div.; 5 mV/div. to 5 V/div. ±3% in 10 steps; 1-2-5 sequence with vernier.
Frequency Response: DC, DC to 20 MHz (−3 dB); AC, 5 Hz to 20 MHz (−3 dB) at 5 mV/div. to 0.2 V/div.; DC, DC to 15 MHz (−3 dB); AC, 5 Hz to 15 MHz (−3 dB) at 2 mV/div.
Rise Time: 17.5 nsec. or less; 23.5 nsec. or less at 2 mV/div.
Overshoot: 3% or less (100 kHz square wave).
Input Impedance: 1 megohm ±2%; 23 pF ±3 pF.
Max. Input Voltage: 300 V (DC + AC peak) or 600 V p-p.
Operating Modes: CH A, CH B, DUAL, ADD and subtract (using CH B inverted).
Chop Frequency: Approx. 200 kHz.
Channel B Polarity: Normal or inverted.
Channel Separation: 60 dB min.

HORIZONTAL AMPLIFIER (Input thru CH B):
X-Y Operation: With sweep Time/Div. switch in CH B position, CH A becomes Y axis and CH B becomes X axis.
Deflection Factor: Same as vertical amplifier.
Input Impedance: Same as vertical amplifier.
Freq. Response: DC, DC to 2 MHz (−3 dB); AC, 5 Hz to 2 MHz (−3 dB).
X-Y Phase Difference: 3° or less at 100 kHz.

TIME BASE:
Sweep Time: 0.2 μs/div. to 0.5 s/div. ±3% in 20 ranges, 1-2-5 sequence with vernier.
Sweep Magnification: X5 ±10%.
Linearity: ±3%.

DELAYED TIME BASE:
Delay Time: 1 μsec. to 100 msec. in 5 ranges, with vernier.
Delay Jitter: Less than 1/5,000.

TRIGGERING:
Slope: Positive or negative.
Hold Off: Continuously variable.
Max. Trigger Voltage: 50 V (DC + AC peak).
Sensitivity: See chart below.

Z-AXIS INPUT (Intensity Modulation):
Sensitivity: 2 V p-p (TTL compatible); positive voltage increases intensity.
Bandwidth: DC to 5 MHz.
Input Impedance: 10,000 ohms.
Max. Input Voltage: 50 V (DC + AC peak).

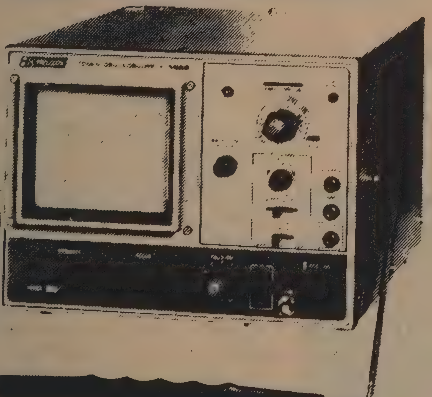
Operating Temperature: 0° C to +45° C.
CRT: Approx. 5" rect. with int. graticules; 8 x 10 div.
Accelerating Voltage: 6 kV.
Power Required: 117/234 VAC, 50/60 Hz, 28 watts.
Size: 7⅜" h. x 10⅛" w. x 14¾" d.
Weight: 19 lbs.

TRIGGER SENSITIVITY:

Coupling	Bandwidth	Min. Trigger Voltage	
		INT (div.)	EXT (V p-p)
AC	20 Hz to 15 MHz	0.5	1
	10 Hz to 20 MHz	1.0	5
DC	DC to 15 MHz	0.5	1
	DC to 20 MHz	1.0	5

B & K-Precision Model 1525P Oscilloscope—Net Ea.. **$750.00**

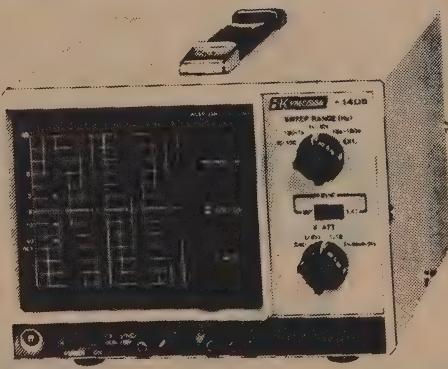
MODEL 1466P 5", 10 MHz TRIGGERED-SWEEP OSCILLOSCOPE



Fully automatic triggered sweep lets you view the entire composite TV signal or any portion thereof. Special sync circuit operates in all sweep positions including TV-H and TV-V. 100% solid state. Fully regulated supply voltages hold calibration constant.
Vertical Sensitivity: 10 mV/cm to 20 V/cm, ±5%, in 11 calibrated ranges, each with fine adjustment.
Frequency Response: DC, from DC to 10 MHz; AC, 10 Hz to 10 MHz (both at −3 dB).
Input Impedance: 1 megohm and 22 pF ±3 pF.
Horizontal Sweep Frequencies: 1 μsec/cm to 0.5 sec/cm ±3% in 18 calibrated ranges, each with vernier adjustment, triggered or automatic.
Sweep Magnification: x5, ±5%.
Internal Calibration: 1 V p-p squarewave at line frequency.
Probes: Two 10:1/direct supplied.
Power Required: 117/234 VAC, 50–60 Hz, 20 W.
Size: 7⅜" h. x 10⅓" w. x 14¾" d.
Weight: 17.3 lbs.

B & K-Precision Model 1466P Oscilloscope—With two 10:1/Reference/Direct probes. Net Each.................**$475.00**
B & K-Precision Model LC-74 Protective Cover–Net Ea.. **$36.15**
B & K-Precision Model LC-133 Carrying Case–Net Ea.. **65.55**

MODEL 1405 3", 5 MHz OSCILLOSCOPE



An all solid-state, highly reliable and ruggedly constructed miniscope. Compact size for field use. General-purpose unit is ideal for most scope applications, especially monitoring on production lines.
Vertical Sensitivity: 10 mV/cm, or better.
Response: DC, DC to 5 MHz; AC, 2 Hz to 5 MHz (both at −3 dB).
Input Impedance: 1 megohm, shunted by 35 pF.
Sweep: Recurrent.
Time Base Ranges: 10–100 Hz; 100–1 kHz; 1–110 kHz, continuously variable between ranges.
Power Required: 117/234 VAC, 50–60 Hz, 16 W.
Size: 6" h. x 7½" w. x 12" d.
Weight: 8.5 lbs.

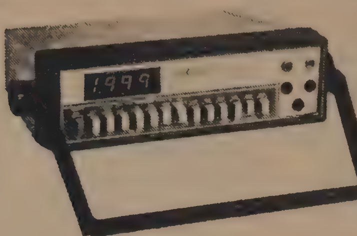
B & K-Precision Model 1405 Oscilloscope—With cable and spare fuse. Net Each..........................**$315.00**
B & K-Precision Model LC14 Case—Protective carrying case for Model 1405 "Mini-Scope." Net Each................**$21.35**

MODEL PR-21

Combination isolation/direct probe. Has switchable 100K resistor to prevent capacitive loading when measuring DC in RF circuits.
B & K-Precision Model PR-21 Probe—Net Each......**$21.85**

B+K PRECISION DYNASCAN CORPORATION Digital Multimeters

MODEL 2830 DIGITAL MULTIMETER

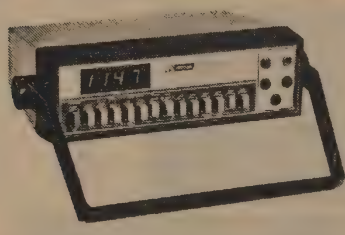


The bright, 0.43″ high LED display is visible under virtually all types of lighting conditions and allows for fast, easy reading. For added efficiency, 100% over-ranging reduces the need for frequent range changes. All ranges and functions are protected against the accidental application of +1000 and −450 VDC or 300 VAC Current ranges are protected by diodes and fuses **DC Volts:** 0–0.1, 1, 10, 100 and 1000 VDC. **AC Volts:** 0–0.1, 1, 10, 100 and 1000 volts. **DC Current:** 0–0.1, 1, 10, 100 milliamperes; 0–1 and 10 amperes. **AC Current:** 0–0.1, 10, 100 milliamperes; 0–1 and 10 amperes. **Resistance:** 0–10, 100, 10K, 100K, 1000K and 10 megohms. High or low power selectable on 1K, 10K, 100K and 1000K ranges. **Accuracy:** DC Volts, ±0.5%; DC, Current, ±1%. **Power Requirements:** 105–130 VAC or 230 VAC, 50/60 Hz. **Size:** 3.25″ h. x 11.6″ w. x 7.5″ d. **Weight:** 3 lbs.

B & K-Precision Model 2830 Digital Multimeter—
Net Each..**$210.00**

B & K-Precision Model BP-30 Optional Battery Pack—
Net Each..**$54.60**

MODEL 2831 DIGITAL MULTIMETER



A built-in, 10 amp current range permits measurement of current up to 20 amps (with overrange) without the need of an external plug-in shunt. Seven ohms ranges provide measurement capability from 0.01 ohm to 20 megohms. For field use, available options include the LC-50 carrying case and BP-30 battery pack. All ranges and functions of the Model 2831 are well protected against the accidental application of 1000 VDC, −450 VDC or 300 VAC. Current ranges have the double protection of diodes and high-voltage fusing. **DC Volts:** 0–0.1, 1, 10, 100 and 1000 VDC. **AC Volts:** 0–0.1, 1, 10 100 and 1000 VAC. **DC Current:** 0–0.1, 1, 10 and 100 milliamperes; 0–1 and 10 amperes. **AC Current:** 0–0.1, 1, 10 and 100 milliamperes; 1 and 10 amperes. **Resistance:** 0–10, 100, 1K, 10K, 100K, 1 megohm and 10 megohms. High or low power selectable on 1K, 10K, 100K and 1 megohm ranges. **Accuracy:** DC Volts, ±0.1%; DC Current, ±1%. **Power Requirements:** 105–130/210–260 VAC, 50/60 Hz. **Size:** 3.25″ h. x 11.6″ w. x 7.5″ d. **Weight:** 3 lbs.

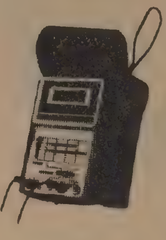
B & K-Precision Model 2831 Digital Multimeter—
Net Each..**$255.00**

B & K-Precision Model BP-30 Rechargeable Battery Pack—
Net Each..**$54.60**

B & K-Precision Model LC-50 Leatherette Carrying Case—
Net Each..**$30.70**

B & K-Precision Model PR-21 Isolation/Direct Probe—
Net Each..**$21.85**

MODEL 2801 DIGITAL MULTIMETER



Digital multimeter features high contrast, 3½-digit, 0.4″ high liquid crystal display. Auto polarity and auto zero. 10 megohms input impedance, ±1% DC accuracy. Fully overload protected. Automatic low battery indication. Comes with test leads, carrying case, spare fuse and instruction manual.

Ranges:
- **DC Volts:** 0–2, 20, 200, 1000 V.
- **AC Volts:** 0–200, 500 V rms.
- **DC Current:** 0–2, 20, 200 mA.
- **Resistance:** 0–2K, 20K, 200K, 2000K ohms.

Input Impedance: DC, 10 megohms; AC, 200k ohms on 200 V range; 2 megohms on 500 V range.
Circuit Protection: ±1000 VDC or DC plus AC, all ranges.
Polarity Indication: Minus sign shown; plus implied.
Max. Reading: 1999.
Operating Temp.: 0° C to +50° C.
Power Required: 9 V, NEDA 1604 battery or equivalent.
Size: 5.4″ h. x 3.4″ w. x 1.4″ d.
Weight: 10.7 oz. including battery and test leads.

B & K-Precision Model 2801 DMM—
Net Each..................**$65.00**

MODEL 2810 DIGITAL MULTIMETER

Portable, digital multimeter with 3½-digit, 0.3″ LED display. Auto-zeroing on all but the 10-ohm range. Auto polarity; 100% overranging capability. 0.01-ohm resolution on 10-ohm range. High/low power ohms switch, operated independently of the range switch. Protected against overload and RF interference on all ranges.

Ranges:
- **AC/DC Volts:** 0–0.1, 1, 10, 100, 1,000 V.
- **AC/DC Current:** 0–1, 10, 100, 1,000 mA.
- **Resistance:** 0–10, 100, 1K, 10K, 100K, 1000K, 10M ohms; both high and low power.

Typical Accuracy: 0.5%.
Power Required: Four C size batteries (Ni-Cad, alkaline or carbon-zinc) with provisions for recharging Ni-Cad batteries (batteries and charger not included).
Size: 6.4″ h. x 4.4″ w. x 2.4″ d.
Weight: 2 lbs.

B & K-Precision Model 2810 DMM—Net Each......**$149.00**

MODEL 2815 LCD DIGITAL MULTIMETER

Portable digital multimeter with large, 3½-digit, 0.5″ LCD display. 100% overrange auto-polarity and auto-zero (except 10-ohm range). Retains accuracy in RF fields. Powered by 9-volt alkaline battery. Automatic low-battery indicator standard. Selectable high/low power ohms ranges permit analysis of solid-state curcuitry, with or without forward biasing semiconductor junctions. Protected against overloads on all ranges. Ohms circuit withstands momentary overloads of up to 1,000 volts. Current ranges protected by both diodes and a fuse. Comes complete with test leads, two spare fuses and instruction manual.

Ranges:
- **AC/DC Volts:** 0–100 mV, 0–1, 10, 100, 1,000 V.
- **AC/DC Current:** 0–100 uA, 0–1, 10, 100, 1,000 mA
- **Resistance:** 0–10Ω, 100Ω, 1KΩ, 10KΩ, 100KΩ, 1000KΩ, 10MΩ.

Size: 6.1″ h. x 4.2″ w. x 1.6″ d.
Weight: 1 lb.

B & K-Precision Model 2815 DMM—Net Each......**$165.00**

ACCESSORIES

B & K Precision Model	Description	Net Each
BC-28	AC charger/adapter	$16.65
BE-15	Battery eliminator	27.05
BP-28	Rechargeable battery	39.55
ES-28	10-amp current shunt	23.95
LC-25	Carrying case	16.40
PR-21	Isolation/direct probe	21.85
PR-23	RF demodulator probe	23.95
PR-28	H.V. probe	34.85
TP-28 & TP-30	Temperature probes	98.80

B+K PRECISION DYNASCAN CORPORATION

PROFESSIONAL TEST INSTRUMENTS

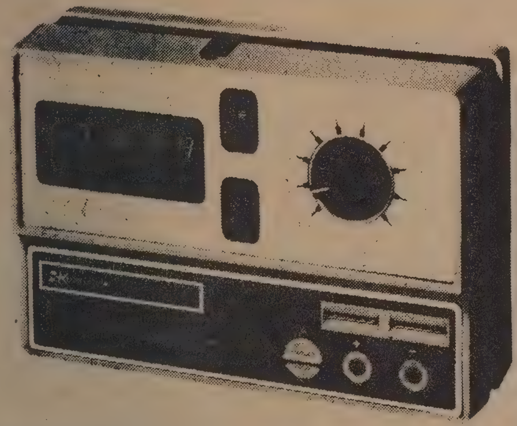
MODEL 830 AUTORANGING DIGITAL CAPACITANCE METER

B+K DYNASCAN CORPORATION
830
830 AUTORANGING CAPACITANCE METER
POWER RANGE
ON AUTO
OFF HOLD
ZERO

The Model 830 is an economical, multirange capacitance meter that features digital accuracy, simplified use and full portability. Ten internal ranges provide automatic, accurate measurement of capacitance, without manual range switching. Because the accuracy of this unit exceeds the tolerance of most capacitors, required values can be hand selected. If capacitors to be measured are limited to a narrow value range, the Range Hold switch can "freeze" the unit into one range. **Range:** 199.9 pF to 199.9 MF. **Accuracy:** ±0.2%. **Power Required:** Four C cells, any type (not supplied). Provisions for optional AC charger are built-in. **Size:** 6.4" w. x 4.4" h. x 2.4" d. **Weight:** 1.6 lbs.

B & K-Precision Model 830 Digital Capacitance Meter—
Net Each..**$238.00**
B & K-Precision Model LC-28 Carrying Case–Net Ea.. **$14.60**
B & K-Precision Model BP-28 Battery Pak–Net Each.. **39.55**
B & K-Precision Model BC-28 Battery Charger–Net Ea.. **16.65**

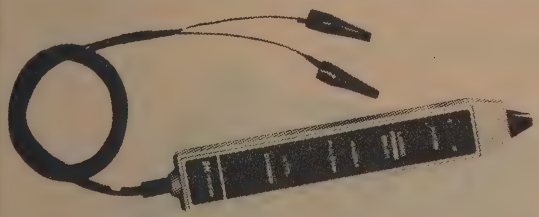
MODEL 820 DIGITAL CAPACITANCE METER



The Model 820 measures capacitors from 0.1 pF to 999,900 μF. Digital circuitry provides resolution to 0.1 pF. Unit has banana jacks for test leads and unique linear type, component lead insertion jacks. Tilt stand, instruction manual and spare fuse are included with the unit. **Size:** 6.4" w. x 4.4" h. x 2⅜" d. **Weight:** 1.51 lbs. with batteries. **Power Required:** Four C cells, any type, (not supplied). Provisions for AC charger are included.

B & K-Precision Model 820 Capacitance Meter—
Net Each..**$192.00**
B & K-Precision Model LC-28 Carrying Case–Net Ea.. **$14.60**
B & K-Precision Model BP-28 Battery Pak–Net Ea... **39.55**
B & K-Precision Model BC-28 Battery Charger–Net Ea.. **16.65**

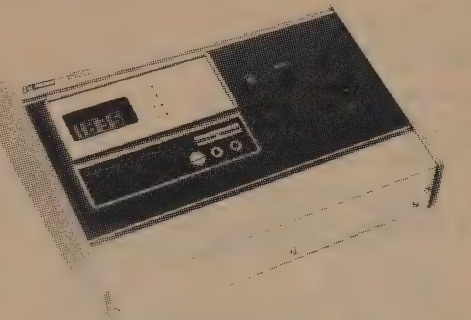
MODEL DP-51 DIGITAL LOGIC PROBE



Simplifies and speeds debugging of digital circuits. The DP-51 is a multi-family device compatible with TTL, DTL, RTL, HTL, CMOS, MOS and HiNIL. Three bright LED's indicate 0, 1 or pulses. Useable to 50 MHz. Slide switch selects Memory or Pulse operation. In Memory mode, high speed pulses are "frozen" stored. In Pulse mode, short pulses as low as 10 nsec. are "stretched" for a clear visual indication. **Frequency Response:** DC to 50 MHz. **Min. Detectable Pulse Width:** 20 nsec. (10 nsec. typ.). **Duty Cycle:** LED intensity directly proportional to duty cycle up to 50 MHz and up to 10:1 ratio. **Pulse Mode:** Will detect and stretch any threshold crossing. **Memory Mode:** Will detect and latch any threshold crossing. **Impedance:** 2 megohms min., all modes. **Logic Threshold:** TTL, logic 1—2.4 V, logic 0—0.8 V; CMOS, logic 1—70% of supply voltage, logic 0—30% of supply voltage. **Oper. Temperature:** 0° C to 50° C. **Power Required:** 5–18 VDC. **Size:** 7.275" h. x 1.2" w. x 0.825" d. **Weight:** 3.5 oz.

B & K-Precision Model DP-51 Digital Probe—
Net Each..**$73.00**

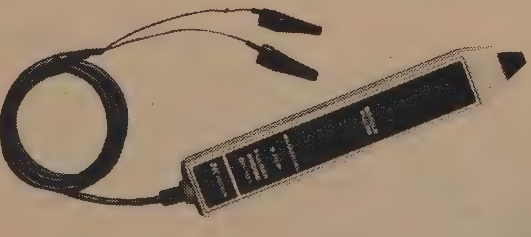
MODEL 835 DIGITAL CAPACITANCE COMPARATOR



Selects capacitance limits from 0.1 pF to 200 μF. Fast Good, High, Low visual indication. 0.2% basic accuracy. Completely self-contained. Built-in autoranging C-meter. Ten internal ranges for high resolution. Range hold switch provided. Designed expressly for rapid component sorting. Once the operator has programmed-in the acceptable low and high capacitance limits, and locked-in the proper capacitance range, Model 835 gives a clear go/no-go indication for the capacitor under test. 3½-digit LCD display. **Range:** 10 automatically selected ranges with full scale value from 199.9 pF to 199.9 μF. **Accuracy:** 0.2% of reading, ±0.5 pF, ±1 digit to 19.99 μF; 1% of reading, ±1 digit from 20 μF to 199.9 μF. **Resolution:** 0.1 pF on lowest range; all other ranges, 0.05% of full scale. **Reading Time:** 0.4–1.0 sec. at 0.20 μF, increasing to 6 sec. at 200 μF. **Power Required:** 117/234 VAC, 50/60 Hz. **Oper. Temp.:** +15° C to +35° C. **Size:** 4½" h. x 13½" w. x 10¼" d. **Weight:** 5 lbs.

B & K-Precision Model 835 Digital Capacitance Comparator—
Net Each..**$702.00**
B & K-Precision Model CF-10 Test Fixture—For use with Model 835. Net Each..**$93.60**

MODEL DP-101 DIGITAL PULSER PROBE



Generates "one-shot" pulse or 5 Hz pulse train. Automatically senses logic state and changes state to its complement. Multi-family: compatible with TTL, DTL, RTL, HTL, HiNIL, MOS and CMOS. High current drive of up to 1 A pulses will pull shorted logic outputs high or low. Short duty cycle pulse will not damage circuitry under test. Fully overload protected. Companion to DP-51 Digital Probe. **Input Voltage Range:** 5 to 15 VDC. **Input Current:** 1 mA at 5 V; 20 mA at 15 V. **Supply Voltage:** 5 volts will pull up 3.3 ohms to 2.4 V; will pull down 10 ohms to 1 V or 33 ohms to 0.8 V; 15 volts will pull up 15 ohms to 10.5 V (70% of supply) or pull down 5.6 ohms to 4.5 V (30% of supply). **Typ. Pulse Width:** 1 μsec. **Operating Modes:** 5 Hz continuous or single pulse. **Size:** 7.63" h. x 1.18" w. x 0.83" d. **Weight:** 3.5 oz.

B & K-Precision Model DP-101 Digital Pulser Probe—
Net Each..**$104.00**

B+K PRECISION DYNASCAN CORPORATION

Frequency Counters

MODEL 1805 MHz MULTIFUNCTION COUNTER

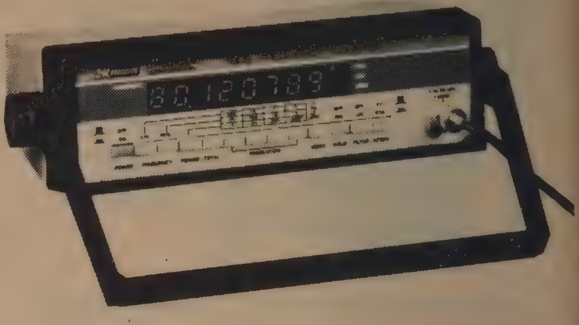
Model 1805 provides frequency, period and totalize measurements. Frequency can be measured from 5 Hz to 80 MHz. Period mode can be used to more accurately measure frequencies from 5 Hz to 2 MHz. The Totalize mode is used to count individual events at 5 Hz to 10 MHz rates. A front panel switchable 100 kHz low-pass filter is incorporated to provide reliable low frequency counting by eliminating high frequency components. All operating modes, resolution ranges and functions are front panel selectable. Other features include a switchable X10 attenuator, a Hold switch to freeze the display at present reading, and a Reset switch to clear the display and initiate a new measurement.

Frequency Range: 5 Hz to 80 MHz; 10 MHz max. in kHz mode.
Accuracy: ± Time base accuracy ± 1 count.
Resolution: 0.1 Hz to 1 kHz, switch selectable.
Periodic Measurement Frequency Range: 5 Hz to 2 MHz (200,000 msec. to 0.5 μsec.); 250 nsec. min. pulse width required.
Totalize Capacity: 0 to 99,999,999 plus overflow.
Input Impedance: 1 megohm, 40 pF.
Input Coupling: AC.
Attenuator: X1/X10, switch selectable.
Filter: Low pass, 100 kHz cutoff, switch selectable.
Time Base Frequency: 10 MHz; crystal oscillator.
Line Voltage Stability: Less than ± 1 ppm with ± 10% line voltage variation.
Temperature Stability: Less than ± 0.001% (± 10 ppm) from 0° C to + 50° C ambient.
Display: 8 LEDs, 0.43" high, 7-segment digits.
Display Update Time: Fixed at 200 msec. plus user selected gate time.
Power Requirements: 108 to 132 VAC, or 100, 120, 220, 240 VAC with internal PC jumpers (all ± 10%), 50/60 Hz.
Size: 3.25" H. x 11.57" W. x 7.5" D.
Weight: 2.75 lbs.

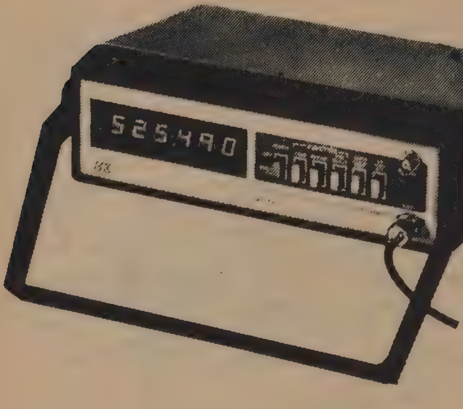
B & K-Precision Model 1805 Multifunction Counter—Net Each.......................................**$290.00**

B & K-Precision Model PR-37 Deluxe 10:1/Direct Probe—Net Each.......................................**$44.75**

B & K-Precision Model LC-50 Carrying Case—Net Ea.. **$30.70**



MODEL 1850 FREQUENCY COUNTER



Obtain 1 Hz resolution to 60 MHz in normal mode, or to 520 MHz with built-in prescaler. Covers all major land mobile bands, including the new "T" band. Automatic indication of MHz or kHz. Automatic suppression of leading zeroes. Flashing overrange indication. A temperature-compensated crystal oscillator provides stability at ± 1 ppm from 0° C to + 50° C. Provides period measurement.

Frequency Range: 5 Hz to 60 MHz normal guaranteed, 10 MHz to 520 MHz prescaled guaranteed.
Power Required: 105–130/212–258 VAC (internal jumpers), 50/60 Hz; 11–16 VDC.
Size: 3.25" x 11.6" x 7.5" (handle at rest position).
Weight: 5 lbs.
Auto Gate Time: Normal, 10 msec (MHz reading), 100 msec and 1 sec (kHz reading); prescaled, 10 msec and 100 msec (MHz reading), 10 sec (kHz reading).
Manual Gate Time: Normal, 1 sec (kHz reading, 1 Hz resolution); prescaled, 10 sec (kHz reading, 1 Hz resolution).
Accuracy: ± time base accuracy, ± 1 count.
Resolution: 1 Hz.
Period Range: 5 Hz to 1 MHz.

B & K-Precision Model 1850 Frequency Counter—With accessory battery cable. Net Each.......................................**$572.00**

B & K-Precision Model PR-37 Deluxe 10:1/Direct Probe—Net Each.......................................**$44.75**

B & K-Precision Model LC-50 Carrying Case—Net Ea.. **$30.70**

MODEL 501A SEMICONDUCTOR CURVE TRACER

In conjunction with an oscilloscope, Model 501A displays a family of dynamic characteristic curves for transistors, FETs, diodes, Zener diodes, triacs, tunnel diodes, and all other semiconductor devices. Typical characteristics which can be measured are gain (beta), leakage, breakdown voltage, output admittance, linearity, and effects of capacitance and temperature. Can be used for troubleshooting without removing the semiconductor from the circuit. Comes with FP-5 probe (3-tip), cables for connection to oscilloscope, mylar 10x10 division graticule and instruction manual.

Collector Sweep:
- **Range:** 0–100 VDC peak at 100 mA max.
- **Polarity:** NPN (N-CHAN) or PNP (P-CHAN).
- **Current Limiting:** Automatic at approx. 130% of full scale for each vertical attenuator range.

Sweep Generator:
- **Current Ranges:** 11 ranges; 1/2/5/10/20/50 μA and .1/.2/.5/1/2 mA per step, ± 3% constant current steps.
- **Voltage Ranges:** 5 ranges; .05/.1/.2/.5/1 volt per step, ± 4%; source resistance, 1,000 ohms.
- **Number of Steps:** 6; continuous display.
- **Steps per Second:** 120.
- **Step Polarity:** Same as collector sweep (NPN or PNP); inverted in VOLTS/STEP position.

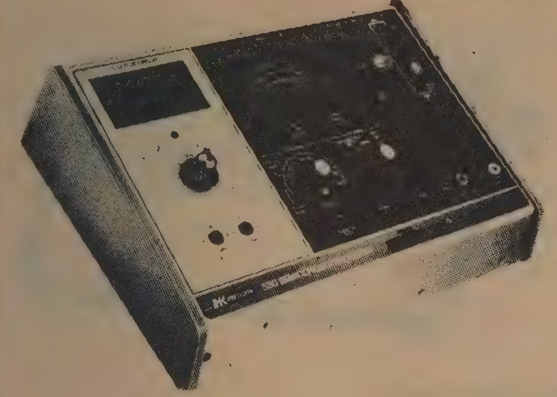
Calibration:
- **Source:** ± .05 to 5 V p-p, ± 3% accuracy.
- **Attenuator Range:** 1/2/5/10 mA per div. vertically.

Power Required: 105–125 VAC, 50/60 Hz.
Size: 4" h. x 10" w. x 9½" d.
Weight: 6 lbs.

B & K-Precision Model 501A Semiconductor Curve Tracer—Net Each.......................................**$312.00**

B+K PRECISION DYNASCAN CORPORATION SEMICONDUCTOR TEST INSTRUMENTS

MODEL 530 SEMICONDUCTOR TESTER



Patented Dynapeak™ circuitry allows in-circuit testing and lead identification of diodes, transistors, FET's and SCR's, even in low impedance circuits. Low duty cycle, high drive currents permit reliable testing of power transistors in circuit. Even the new power VFET's can be tested. Bright LED's identify whether a transistor is good and whether it is an NPN, PNP, or N or P channel FET. An audible tone also signals that the transistor under test is good. In out-of-circuit tests, the Model 530 measures beta from 20 to 600, gm from 0.4 to 400 millimhos. Measures Ft (gain bandwidth product) to 1500 MHz. BV_{CES} and PIV to 100 volts and I_{CES} and I_{DSS} from 0.5 μA to 5 mA.

Power Required: 105–125 VAC, 60 Hz, 10 W.

Size: 7″ h. x 13″ w. x 3½″ d.

Weight: 5 lbs.

B & K-Precision Model 530 Semiconductor Tester—Net Each.......................................**$473.00**
B & K-Precision Model FP-5 Three Tip Probe—Net Ea.. **$25.50**
B & K-Precision Model FP-6 Repl. Lead Set—Net Each. **$14.60**

MODEL 520B AUTOMATIC TRANSISTOR TESTER

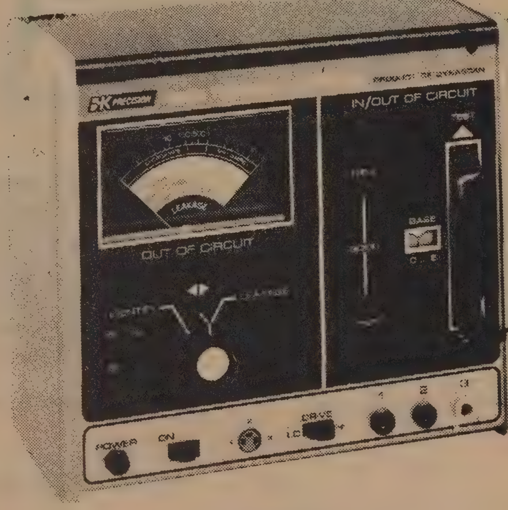
The Dynapeak™ circuit applies high current, low duty cycle pulses to test semiconductors even when shunted by resistances as low as 10 ohms and capacitances up to 15 μF. The 520B is fast, too. A complete test can take less than nine seconds. With the tester set to LO drive, just connect the test clips in any order to the leads of the device to be tested. Move the test switch thru its six positions until you hear a pulsating audio tone, which indicates a good semiconductor. All three leads are identified automatically. If you do not hear a tone, switch to HI drive and operate the test switch again. Now, a tone indicates a good semiconductor and identifies the base or gate lead. Each transistor testing as good also is identified as NPN or PNP. Leakage current measurements are made on devices out-of-circuit. The device is automatically identified as silicon or germanium and acceptable leakage limits are indicated for each on the meter panel.

IN-CIRCUIT TESTS:
Good/Bad Test: For PNP and NPN transistors, FET's and SCR's. Identifies NPN or PNP.

OUT-OF-CIRCUIT TESTS:
Good/Bad Test: For PNP and NPN transistors, FET's, SCR's, leakage and loss. Identifies NPN or PNP and silicon or germanium transistors. Measures reverse leakage from 0.1 μA to 5 mA.

APPLIED TEST CURRENTS:
Collector: 250 mA at 5% duty cycle.
Base: 125 mA at 5% duty cycle.
Test Repetition Rate: 10 per second.
Leakage Test Reverse Voltage: 2.0 V.
Power Required: 105–125 VAC, 50–60 Hz.
Size: 8″ h. x 7″ w. x 3½″ d.
Weight: 5 lbs.

B & K-Precision Model 520B Transistor Tester—With test leads and instruction manual. Net Each..................**$249.00**
B & K-Precision Model FP-5 "Dynaflex" Probe—Adjustable 3-prong probe for easy one-hand testing. Net Each......**$25.50**
B & K-Precision Model FP-6 Replacement Lead Set—Flexible leads with mini lock clips. Net Each.................**$14.60**



MODEL 510 PORTABLE TRANSISTOR TESTER

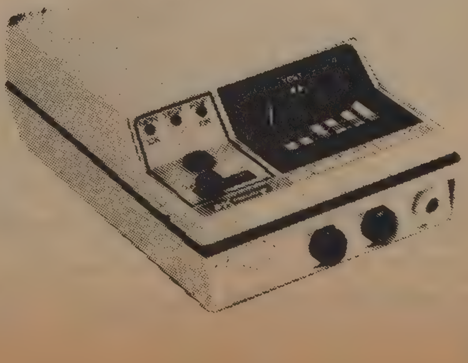
The Model 510 uses high current, low duty cycle testing technique to test semiconductors even with resistive and capacitive shunt impedances. In LO drive, you get positive GOOD/BAD indication, polarity and lead identification. In HI drive, you get GOOD/BAD indication, polarity and base lead identification. Also tests FET's and SCR's.

Power Required: Four "AA" cells give over 100 hours use.

Size: 3¼″ w. x 6⅝″ h. x 1¾″ d.

Weight: 1 lb.

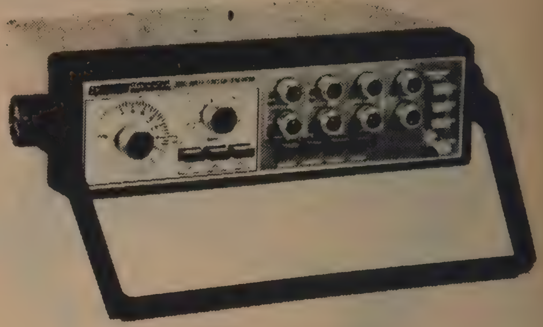
B & K-Precision Model 510 Transistor Tester—With test leads and carrying case. Net Each.........................**$140.00**



MODEL 3020 SWEEP/FUNCTION GENERATOR

One instrument produces sine, triangle, square, TTL, pulse and tone burst signals with no sweep or 1000:1 linear or log. A variable symmetry control varies the duty cycle of any waveform over a 40:1 range. Thus, a square wave can be turned into a pulse, a triangle wave can be turned into a sawtooth or ramp wave, and sine-wave distortion can be simulated. All waveform types can be inverted. Frequency response can be measured by using the sweep mode. The linear or log sweep can be selected, and the range, width and rate may be varied as desired. The output signal may be AM modulated to 100% by a 0 to 1.5 V external source. The carrier level may be turned down to generate a suppressed-carrier signal. DC offset to ±10 VDC (open circuit) combined with the selected output signal can be added. **Frequency Range:** 0.02 Hz to 2 MHz in 7 ranges. **Accuracy:** ±5%. **Stability:** .05% after 15 minutes operation. **Sweep Rate:** 0.5 Hz to 50 Hz. **Output Voltage:** 20 V p-p into open circuit; 10 V p-p into 50 ohms. **Attenuation:** Variable control plus three pushbuttons give 0–60 dB range. **Operating Temperature Range:** 0° C to 50° C. **Power Requirements:** 105–130 VAC, 60 Hz, 22 watts. **Size:** 3.2" h. x 11.3" w. x 7.8" d. **Weight:** 3.1 lbs.

B & K-Precision Model 3020 Function Generator—
Net Each.......................................**$394.00**



MODEL 3010 FUNCTION GENERATOR

The Model 3010 Function Generator offers sine, triangle, square and TTL square waveforms from 0.1 Hz to 1 MHz in six ranges with linear 100:1 frequency control for each range. Sine-wave distortion at 100 kHz is under 1%; triangle-wave linearity and square-wave symmetry is 99% at 100 kHz. TTL square-wave rise/fall time is 25 nanoseconds or less. Features include a variable ±5 VDC offset control for engineering applications, pushbutton range and function selection and a VCO external control input. If a 0–5.5 volt ramp is applied to the VCO input, the 3010 will provide a 100:1 output frequency change. In this manner, the 3010 functions as a sweep generator. **Power Required:** 105–125 VAC, 60 Hz (3-wire cord). **Size:** 3.25" h. x 11.6" w. x 7.5" d. **Weight:** 2.9 lbs. CSA Listed.

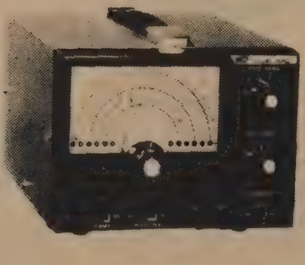
B & K-Precision Model 3010 Function Generator—
Net Each.......................................**$229.00**

MODEL E200D WIDE-RANGE RF GENERATOR

Model E200D offers 100% solid state circuitry, calibrated meter monitors, RF level and % modulation, zener-regulated power supply. Wide-range coverage provides 100 kHz to 54 MHz on fundamentals; 54–216 MHz on harmonics. Outputs: Unmodulated RF; modulated RF; externally modulated RF; 400 Hz audio. Accuracy of better than 0.1% possible with internal crystal calibration. For trap, bandpass coil alignment; FM/AM receiver alignment; stage-by-stage amplifier gain tests; signal tracing. **Power Required:** 110–130 VAC, 50–60 Hz, 6 W. **Size:** 12¾" w. x 8" d. x 7¼" h. **Weight:** 10 lbs.

B & K-Precision Model E200D RF Generator—
Net Each.......................................**$405.00**

MODEL 2050 RF SIGNAL GENERATOR



Very compact and lightweight, Model 2050 RF generator is easily portable. Provides 100 kHz to 30 MHz in 6 bands with 1.5% o dial setting accuracy. 100% solid state circuitry. Has FET's in RF and audio oscillator stages for greater stability and linearity. Lightweight, weighs only 5 lbs. Attenuator: Combination high-low switch, plus continuously variable RF output control. Outputs: RF, 400 Hz modulated RF and externally modulated RF. **Power Required:** 117/234 VAC, 50–60 Hz 2.8 W. Has 3-wire AC cord. With shielded leads with insulated clip and banana plug. **Size** 7½" w. x 9¾" d. x 6⅛" h. **Weight:** 5 lbs.

B & K-Precision Model 2050 RF Signal Generator—
Net Each.......................................**$218.0**

· 1250 NTSC COLOR-BAR GENERATOR

A cost-effective instrument, designed for broadcast, CATV and industrial TV applications. Accurately generates NTSC color bars, with or without -IWQ signal. Generates 5-step linear staircase with selectable chroma levels. External video input modulates RF and IF carrier outputs. Crystal controlled RF, IF and NTSC sync.; 4.5 MHz audio intercarrier modulation; selectable 1 kHz, 3 kHz or external audio input. Dot, dot-hatch, cross-hatch, center-cross and color raster for convergence checks. Raster color selection: red, blue, green, yellow, cyan, magenta, white and black raster. RF outputs on Ch. 3, Ch. 4 or standard TV IF frequency. 3.579545 MHz subcarrier output. Selectable vertical and horizontal sync output. Selectable on-off for chroma. CSA approved. **Power Required:** VAC, 18 watts. **Size:** 4½" h. x 18" w. x 12" d. **Weight:** 11 lbs.

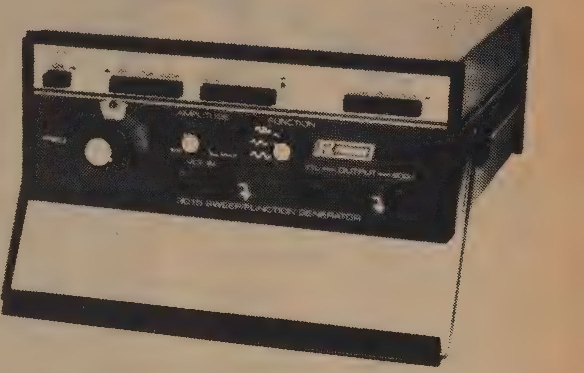
B & K-Precision Model 1250 NTSC Color Bar Generator—
Net Each.......................................**$883.00**

B & K-Precision Model RM-12 Rack Mounting kit—
Net Each.......................................**$29.15**

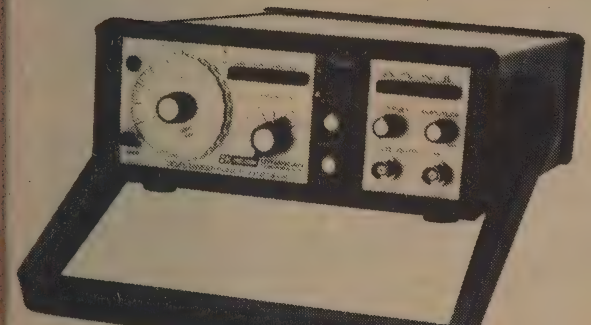
MODEL 3015 SWEEP/FUNCTION GENERATOR

The Model 3015 Sweep/Function Generator produces sine, square, and triangle waveforms from 2 Hz to 200 kHz in three ranges with each providing 1000:1 frequency control. Built-in linear and log sweep capabilities are selected by pushbuttons at three different sweep rates. The sweep rate may be increased by adding an external ramp timing capacitor to rear panel terminals. The sweep rate may also be controlled by an external signal of 0 to 1 volt. An output terminal is also provided for the internally generated sweep ramp voltage. Outputs are provided at a fixed TTL level and a variable amplitude 600-ohm level. Variable output is controllable on sine, triangle, or square-wave signals up to 15 V p-p open circuit or 7.5 V p-p into 600 ohms. Sinewave distortion is rated at less than 1% from 2 Hz to 20 kHz. Triangle wave and square wave symmetry is greater than 99% at 100 kHz. **Accuracy:** ±5% full scale to 20 kHz. **Attenuation:** 0 to 30 dB, continuously variable. **Internal Sweep:** Linear, 1000:1; Log, 1000:1. **Sweep Rate:** Slow, 25 sec; medium, 250 msec; fast, 2.5 msec. **Operating Temperature Range:** 0° to 50° C. **Power Requirements:** 120 VAC with adapter. **Size:** 2⅞" h. x 8½" w. x 7⅜" d. **Weight:** 2 lbs.

B & K-Precision Model 3015 Sweep/Function Generator—
Net Each..**$281.00**



MODEL 3025 SWEEP/FUNCTION GENERATOR



The Model 3025 Sweep/Function Generator produces sine, square, triangle, haversine, TTL, and tone burst signals. Linear and log sweep capabilities are selected by front panel pushbuttons. Start and stop frequency limits for sweep range may be set independently as the need requires. Sweep rates are continuously adjustable from 10 msec to 1 minute. Linear sweeps of 1000:1 for 3 decades, and log sweeps of 10,000:1 for 4 decades may be set. Sinewave distortion is less than 0.5% from 1 Hz to 100 kHz, and all harmonics above 100 kHz are suppressed by at least 30 dB. Sweep voltages are available for driving a chart recorder or oscilloscope. DC offset can be added to output signals in an open state from ±10 VDC; and ±7.5 VDC into a 50-ohm load. Both high and low level signal outputs are available on the front panel. The low level output signal is 20 dB down from the high output signal; thus, when used in conjunction with the 20 dB amplitude control, a maximum output attenuation of 40 dB is available. **Frequency Range:** 0.005 Hz to 5 MHz in 7 ranges, 1000;1 frequency control. **Accuracy:** ±5% of full scale. **Stability:** 0.25% after 15 minutes operation. **Output Voltage:** 20 V p-p into open circuit, 10 V p-p into 50 ohms. **Square Wave Symmetry:** Better than 99% from 1 1 Hz to 5 MHz. **Square Wave Rise/Fall Time:** Less than 50 nsec. **Operating Temperature Range:** For stated accuracy—25° ±5° C. after 30 minutes operation. **Power Requirements:** 100–240 VAC, 50/60 Hz, 25 W. **Size:** 3.5" h. x 8½" w. x 7⅜" d. **Weight:** 5 lbs.

B & K-Precision Model 3025 Sweep/Function Generator—
Net Each..**$468.00**

MODEL 3030 SWEEP/FUNCTION GENERATOR

Model 3030 is a high performance Sweep/Function Generator which produces seven waveforms; sine, square, triangle, positive and negative square, and positive and negative ramp. High accuracy dividers are used as start and stop controls to set high and low end limits of the desired sweep frequency. Sweep times are selectable from 10 msec to 100 msec. Linear and log sweep operation is provided. The 3030 may be externally swept by applying a 5-volt ramp signal to the VCF input. The shape of the waveform can be altered by the Symmetry control, continuously variable from 5% to 95% of the duty cycle; thus, the square wave can be altered to generate rectangular waves or pulses. The triangle wave can be reshaped into a sawtooth or ramp. Open circuit output is 20 V p-p, or 10 V p-p into a 50-ohm load. Attenuation is provided to 60 dB in 10 dB steps. An output amplitude control provides continuously variable attenuation up to 20 dB. Tone burst signals are produced for speaker tests. Variable DC offset is provided with a maximum open circuit range of ±10 VDC, and ±5 VDC into 50 ohms. **Frequency Range:** 0.001 Hz to 5 MHz in 8 ranges with 1000:1 frequency control. **Accuracy:** ±(1.5% of setting, +1% full scale), from 0.001 Hz to 1 MHz; ±(2% of setting, +2% full scale), from 1 MHz to 5 MHz. **Amplitude and Frequency Stability:** 0.25% after 15 minutes operation. **Sweep Rate:** 10 msec to 10 sec in four steps with X10 multiplier for up to 100 sec. **Sweep Width:** 1000:1, three decades; 10,000:1 log, four decades. **Square Wave Symmetry:** Better than 99% from 1 Hz to 5 MHz. **Square Wave Rise/Fall Time:** Less than 50 nsec. **Distortion:** Less than 0.5%, 1 Hz to 100 kHz; all harmonics greater than 30 dB down from 100 kHz to 5 MHz. **Operating Temperature Range:** 25° ±5° C to 50° ±5° C after 30 minutes operation. **Power Requirements:** 100–240 VAC, 50/60 Hz, 30 W. **Size:** 5" h. x 12.5" w. x 11" d. **Weight:** 10 lbs.

B & K-Precision Model 3030 Sweep/Function Generator—
Net Each..**$671.00**

B+K PRECISION DYNASCAN CORPORATION Probes and Accessories

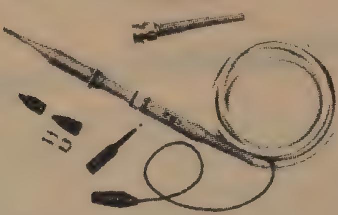
OSCILLOSCOPE PROBES

MODEL PR-21

Combination isolation/direct probe. Has switchable 100K resistor to prevent capacitive loading when measuring DC in RF circuits.

B & K-Precision Model PR-21 Probe—Net Each...... **$21.85**

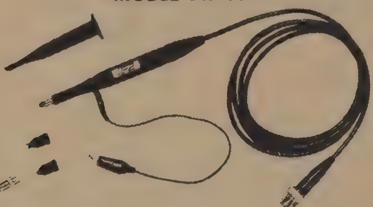
MODEL PR-37



Deluxe 10:1/Direct probe designed for oscilloscopes and frequency counters to 100 MHz. Includes spring-loaded retractable tip cover, insulating tip, BNC tip, IC tip and compensation-capacitor adjusting tool. Has BNC connector.

B & K-Precision Model PR-37 Low Capacity Probe—
Net Each.. **$44.75**

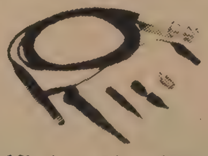
MODEL PR-40



A combination Direct/Reference/10:1 probe for oscilloscopes having 15–40 pF input capacity. In the reference position, the oscilloscope input is grounded, allowing measurement of the reference level.

B & K-Precision Model PR-40 Probe—Net Each...... **$39.55**

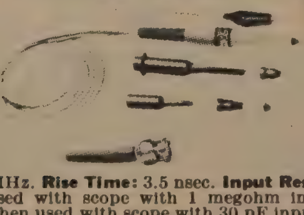
MODEL PR-45 LOW CAPACITY PROBE



Attenuator: 1/10, ±1% at scope impedance of 1 megohm, ±1%. **Input Impedance:** 10 megohms, ±1%. **Input Capacity:** Less than 18 pF. **Bandwidth:** 100 MHz. **Rise Time:** 3.5 nsec. **Max. Input Voltage:** 500 V p-p or 250 V (DC + AC peak).

B & K-Precision Model PR-45 Low Capacity Probe—
Net Each.. **$57.20**

MODEL PR-47 GENERAL PURPOSE X10 PROBE



Bandwidth: 100 MHz. **Rise Time:** 3.5 nsec. **Input Resistance:** 10 megohms when used with scope with 1 megohm input. **Input Capacity:** 17 pF when used with scope with 30 pF input capacity. **Compensation Range:** 10–60 pF. **Working Voltage:** 600 V (DC + AC peak). **Cable Length:** 60".

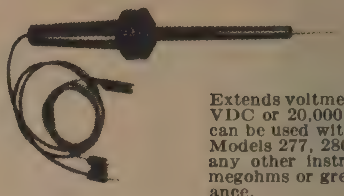
B & K-Precision Model PR-47 X10 Probe—Net Each.. **$31.20**

RACK MOUNTING KIT

Model RM-14 Rack Mounting Kit includes everything needed to mount Model 1479B, 1477, 1476 or 1466 oscilloscope in a standard 19" rack. Panel, hardware and complete instructions are provided.

B & K-Precision Model RM-14 Rack Mounting Kit—
Net Each.. **$54.60**

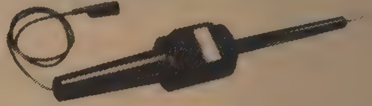
MODEL PR-28 HIGH-VOLTAGE MULTIPLIER PROBE



Extends voltmeter range to 40,000 VDC or 20,000 VAC. The PR-28 can be used with B & K-Precision Models 277, 280 and 290, or with any other instrument having 10 megohms or greater input impedance.

B & K-Precision Model PR-28 High Voltage Probe—
Net Each.. **$34.85**

MODEL HV-44 DIRECT-READING 40 KV PROBE



The Model HV-44 is factory calibrated at 25 KV and should never need recalibration. Accuracy at 25 KV is ±2% and ±3% at full scale. Supplied with two interchangeable tips: one conventional round tip and one specially designed flat spring type for easy access to CRT anode.

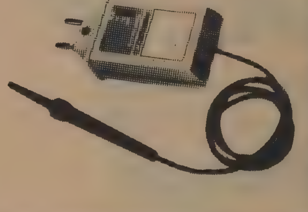
B & K-Precision Model HV-44 Direct-Reading HV Probe—
Net Each.. **$60.00**

PROBE CARRYING CASE

Optional vinyl case to carry PR-28, HV40 or HV-44 probe.

B & K-Precision Model LC-32 Carrying Case—
Net Each.. **$14.60**

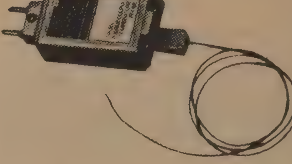
MODEL TP-28 TEMPERATURE PROBE



The all solid-state Model TP-28 measures the temperature of any surface, liquid or gas. It connects to any voltmeter with a 3 V range and an input impedance of 10K ohms or more. **Temperature Range:** −58° F to +302° F; −50° C to +150° C. **Sensitivity:** 10 mV/° C or F. **Resolution:** 0.01°. **Accuracy:** ±1.7° C or ±3° F. **Power Required:** One 9 V battery. **Size:** 3½" x 2" x 1⅛". **Weight:** 5 ozs.

B & K-Precision Model TP-28 Temperature Probe—
Net Each.. **$98.80**

MODEL TP-30 SOLID-STATE TEMPERATURE PROBE



Thermocouple type temperature probe accurately measures temperature from −200° C to +482° C (−328° F to +900° F) with any analog or digital voltmeter with a 0–1 V range and an input impedance of 12,000 ohms or more. For greater temperature ranges, TP-30 accepts standard sensor types. Selectable Fahrenheit or Celsius. 200 hour battery life. Open probe warning. **Sensitivity: (With Sensor Supplied):** 1 mV/° C or F. **Resolution:** 0.1° (with adequate voltmeter sensitivity). **Power Required:** One 9 V battery. **Size:** 3½" x 2" x 1⅛". **Cable Length:** 3 ft. **Weight:** 5 ozs.

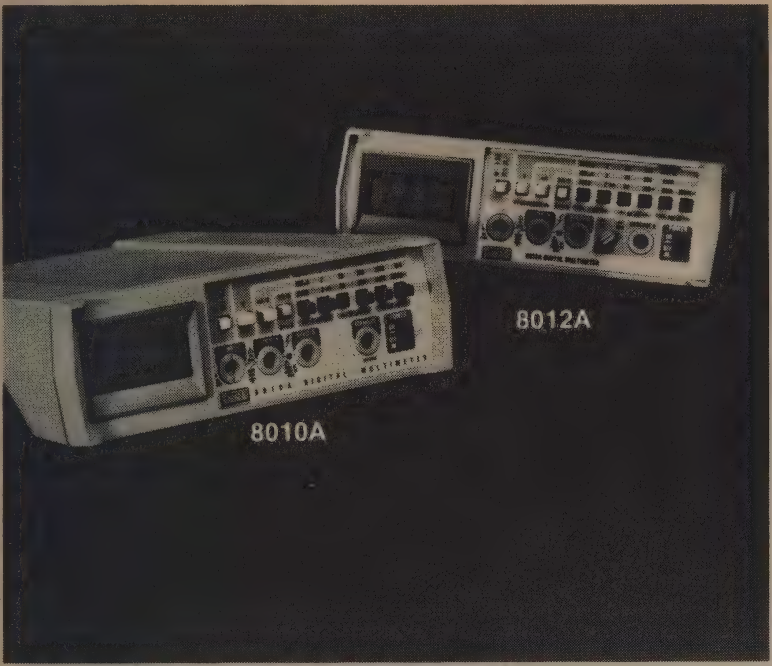
B & K-Precision Model TP-30 Temperature Probe.
Net Each.. **$98.80**

MODEL TR-110 ISOPAK ISOLATION TRANSFORMER

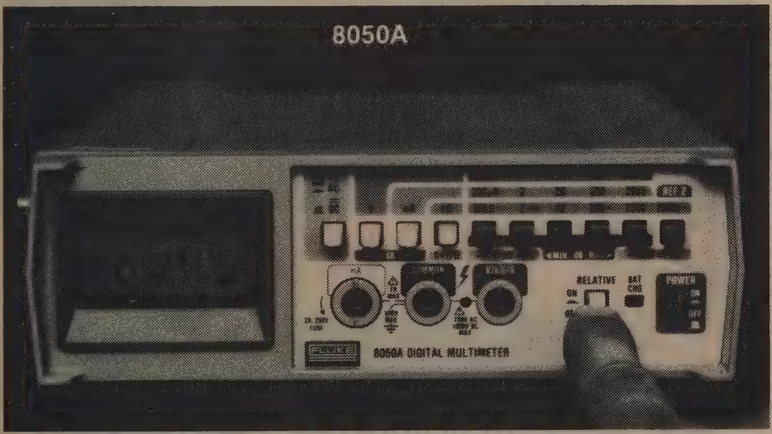
Ruggedly constructed and designed for heavy use in industrial and educational environments. All metal case. Three-wire grounded AC outlets and line cord. Dual isolated outputs permit safe testing of "hot chassis" transformerless equipment. Can be used to vary line voltage applied to electrical devices or instruments under test. Isolated outputs rated 350 VA continuous; 500 VA intermittent; adjustable from 90 to 140 VAC in 9 steps. Direct outputs rated 500 VA continuous. Fuse protected. **Power Input:** 105–130 VAC, 60 Hz. Isolation complies with UL standard 1012, May 1977. **Size:** 5½" h. x 5⅛" w. x 8" d. **Weight:** 11 lbs.

B & K-Precision Model TR-110 Isolation Transformer—
Net Each.. **$88.00**

FLUKE® BENCH/PORTABLE DMM's



Fluke's newest bench model portable digital multimeters



Make dB, dBm, or offset measurements in addition to the usual

8010A/8012A/8050A DMM's

The 8010A, 8012A, and incomparable 8050A DMM offer more functions and features for the money than any other bench DMM's you can buy. They all have these important features in common:

The Conductance function lets you check resistance hundreds of times higher than the 20 MΩ limit of most DMM's.

True RMS measurements of ac voltage and current assures not only accuracy for sinewaves, but assures accuracy for other waveforms, from square waves to pulse-shaped signals. Measurement errors may approximate 40% near these extremes when measured with average-sensing ac-to-dc converter circuits instead of rms-sensing circuits.

Accuracy specs to 50 kHz, and a typical bandwidth to 200 kHz, assures recognition of harmonics of lower frequency signals as well as extending sinewave measurements to this range.

High- or low-power ohms mean you can check in-circuit resistances without turning on diodes, or check diodes if you prefer.

One year accuracy specifications reduce calibration costs greatly.

The 80T-H Touch-Hold Probe (optional) lets you make voltage or resistance measurements in crowded, hard-to-reach, or hazardous places without taking your eyes off the probe.

8050A

- 4½ digits & microprocessor-based
- 0.03% basic dc accuracy
- True RMS for ac accuracy
- Direct dBm readout...15 impedances
- Direct relative dB readout
- Offset (±difference) measurements

Even though the 8050A resembles the 8010A and 8012A, it is like nothing you have seen before in a low-cost digital multimeter. First, it has 10 times the resolution of 3½-digit DMM's and extraordinary accuracy. Being micropressor-based, it can store any reading as an offset and algebraically subtract it from subsequent measurements, yielding a direct ± difference. The offset capability lets you avoid calculations. Makes it eacy to check tolerances, match components, fast — and with much better accuracy.

The microprocessor will also convert voltage directly to dB — either compared to your stored (relative) reading or compared to 1 milliwatt (dBm) and your choice of 15 impedances. Decibel readings make gain and attenuation measurements easy. 20 Hz to 20 kHz voltages as small as 0.77 mV rms and as high as 200V rms can be measured with a mid-range accuracy of ±0.15 dB. Out to 50 kHz, accuracy is ±0.75 dB for voltages above 0.1V. See DMM comparison chart.

8050A 4½-Digit μP-based DMM	$389
8050A-01 w/rechargeable battery	439

8010A

- Our lowest-cost bench/portable DMM
- True RMS current to 10 amps

The 8010A is for people who need an accurate, reliable, rugged, bench/portable DMM with standard measurement capabilities plus the unique capabilities described earlier. The added value makes Fluke an easy choice. See the comparison chart for more specifications.

8010A 10 Ampere DMM	$259
8010A-01 w/rechargeable battery	299

8012A

- World's widest-range 3½-digit ohmmeter
- True RMS for ac accuracy

The 8012A has two additional low resistance ranges compared to most DMM's — 20Ω and 2Ω. Resistance measurements extend from 0.001Ω to 10,000 MΩ using the conductance function. Check transformer winding resistance *and* leakage! See the comparison chart for specifications.

8012A Low-Ohms DMM	$339
8012A-01 w/rechargeable battery	379

BENCH/PORTABLE DMM's

8030A-01

- Fluke's smallest bench/portable DMM
- True RMS for ac accuracy
- 3½-digit LED readout, even in the dark
- Diode test measures forward voltage drops

If your application requires a 3½-digit DMM with True RMS in a small package, the 8030A is the answer. It features bright LED's, 0.1% basic dc accuracy, and an internal rechargeable battery pack. A separate battry charger/eliminator reduces the size and weight for field use. True RMS provides ac measurement accuracy in the presence of noise and distorted waveforms. Ac coupling rejects dc bias during ac voltage measuremetns, and dc coupling on ac current ranges provides ac + dc capability for measuring power supply and SCR-regulating circuitry. See comparison chart for other specifications.

8030A-01 Battery-portable DMM $439

8030A

8030A MULTIMETER

Fluke's smallest bench/portable digital multimeter

8040A-01

- Only battery-portable 4½-digit DMM with autoranging
- True RMS for ac accuracy
- 0.05% basic dc accuracy
- LED readout, even in the dark

The 8040A is our smallest 4½-digit multimeter. It brings the features, accuracy, and resolution of a laboratory type instrument to the field in a ruggedized, compact package. Fluke True RMS circuitry insures accurate measurements of distorted ac waveforms.

Ac current is dc coupled, providing the ability to measure unfiltered power supplies and SCR-regulated sources. Ac voltage is ac coupled so you can block dc and measure only ac components like power supply ripple.

Autoranging automatically switches to the range that gives you the best resolution.

Includes an internal 8-hour rechargeable battery pack and separate battery charger/eliminator.

8040A-01 Autoranger DMM $645

8040A

POWER
ON
OFF
+18.888
DC
AC
200mV
200Ω
200μA
AUTO
FLUKE
8040A MULTIMETER

"Lone" Autoranger, 4½ digits and batteries

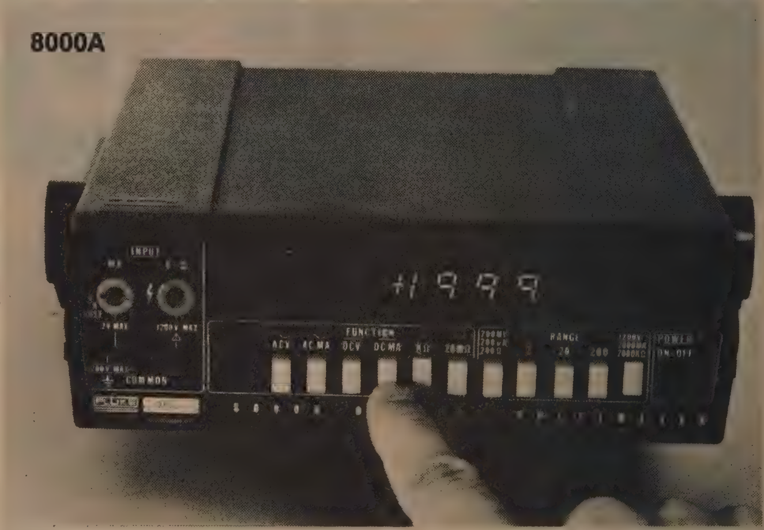
8000A

The 8000A is not the newest — it is the classic. Available in several special variations, too.

The 8000A/MAS has five special ranges to indicate energy in x-ray current pulses — a product of current and time expressed in milli-ampere-seconds (mAs).

8000A 3½-Digit DMM	$595
8000A-01 w/rechargeable battery	645
8000A/MAS 3½-Digit DMM	725

8000A



Best known DMM in the world

DIGITAL COUNTERS

Fluke's versatile 1900-Series Multifunction Counters provide frequency, period, and totalize measurements over a wide range of applications. In the frequency mode, they verify the accuracy of signal sources such as generators, oscillators, and transmitters. Period mode measures the time duration of single input cycles, which allows fast, high resolution of low frequency measurements. In period average mode, the counter averages cycle time over 10, 100, or 1000 cycles for still finer resolution. Totalize mode is similar to frequency mode except the signal gate is opened and closed deliberately, a feature useful for totalizing the cycles in a single rf burst or counting relay contact bounce, for example.

At high frequencies, where erratic triggering is most apt to cause erroneous measurements, the 1911A and 1912A 50 ohm input channels have "automatic clean drop out" — the reading goes to zero instead of being intermittant. All models are available with an internal rechargeable battery providing at least 4 hours of operating time. Recharge time is 16 hours.

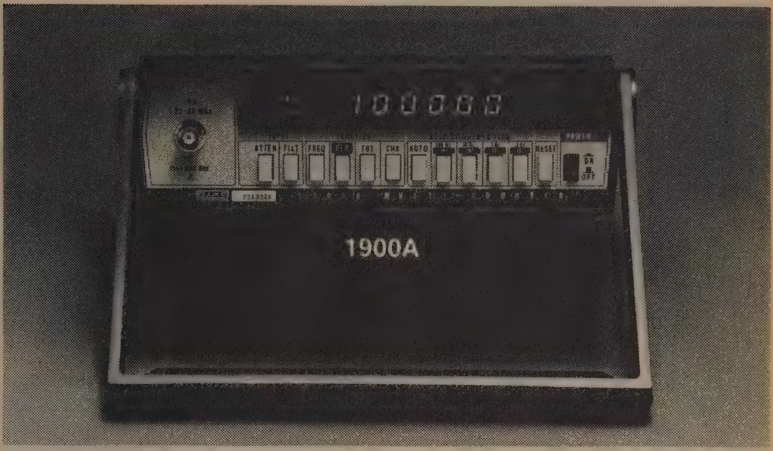
Sensitivity: 25 mV rms on 1900A, 15 mV rms on 1910A, 1911A, 1912A, at 50 mHz.
Impedance: 1 MΩ shunted by 30 pF. Additional 50Ω input on 1911A and 1912A
Frequency Resolution: Four manually-selected gate times provide resolution of 100 Hz to 0.1 Hz in decade steps
Period: 5 Hz to 1 MHz. Period-average mode provides resolution of 100 ns to 100 ps
Timebase Aging: ±5 x 10^{-7} per month
Temperature Stability: ±5 ppm, 0°C to 50°C
Display: LED, leading zero suppression, annunciation, and overflow
Autoranging: Automatically changes range seeking to fill all digits. 20% hysteresis allows measurements to be made on signals containing large amounts of FM and PM
Autoreset: Every time a front panel button is activated
Data Output Option (-02): Seven digits of BCD data with overflow, decimal point and units information

Models

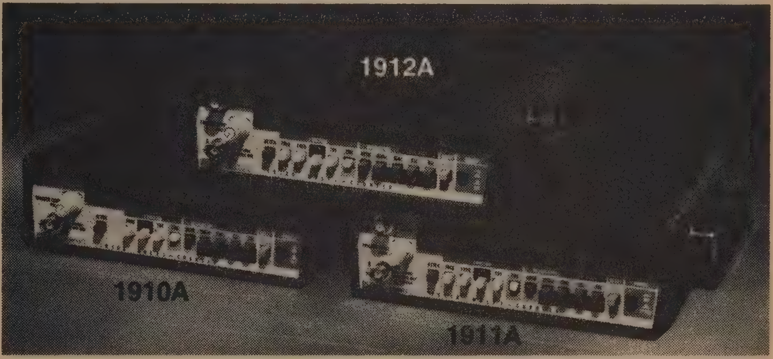
1900A 80 MHz Counter	$395
1900A-01 with battery	445
1900A-02 with data output	465
1910A 125 MHz Counter	475
1910A-01 with battery	595
1911A 250 MHz Counter	575
1911A-01 with battery	695
1912A 520 MHz Counter	725
1912A-01 with battery	835

Options (for 1910A, 1911A, 1912A)

1910A-02 Data output	$35
1910A-03 2 ppm TCXO	165
1910A-04 0.5 ppm TCXO	275



Lowest cost multifunction counter/timer

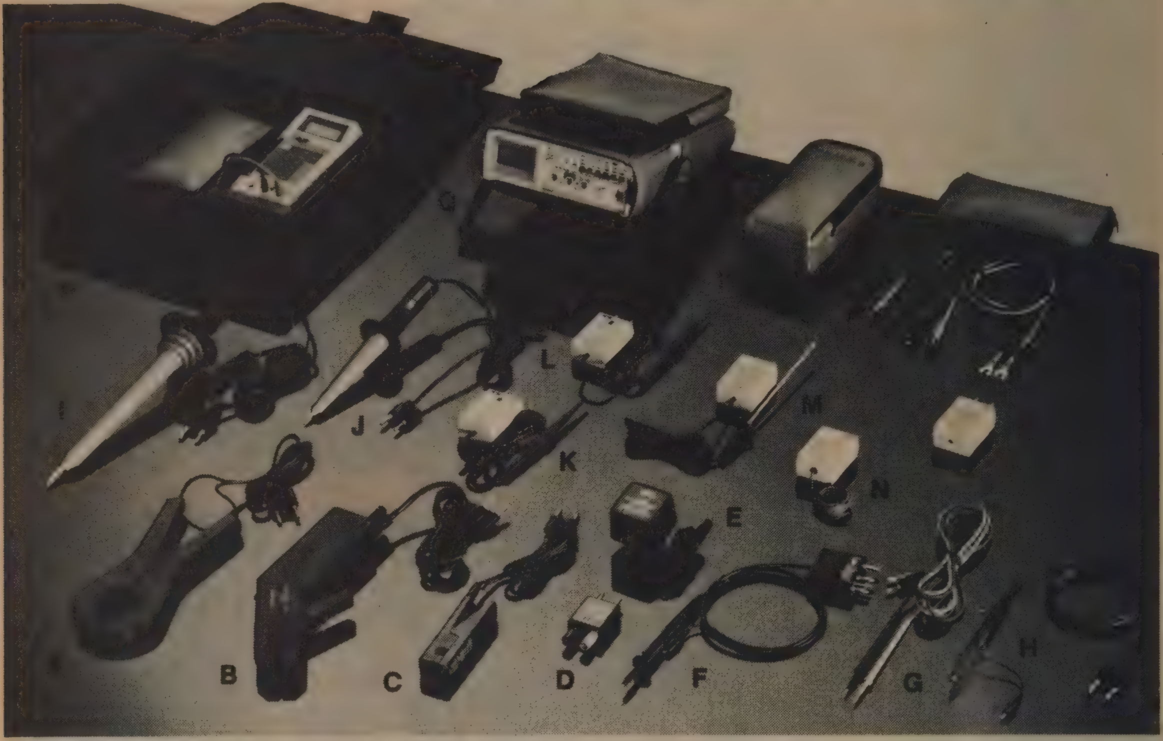


Wide, wider, and widest of the wide-band counters

Counter Buyer's Guide

Features	**1900A**	**1910A**	**1911A**	**1912A**
Number of Digits	6	7	7	7
Frequency (MHz)	80	125	250	520
Period & Period Average	●	●	●	●
Totalize	●	●	●	●
Ratio (w/ext. timebase)		●	●	●
Sensitivity (mV rms 50 MHz)	25	15	15	15
Trigger Level Control		●	●	●
Automatic Clean Dropout			●	●
External Timebase Input		●	●	●
Battery Option	●	●	●	●
TCXO Options		●	●	●
Digital Output Option	●	●	●	●
Autoreset	●	●	●	●
Autorange or Manual	●	●	●	●

FLUKE® DMM & COUNTER ACCESSORIES



(A) 80I-600 Current Transformer $95
Measure ac current from 1A to 600A. Clamps over conductors up to 2 inches in diameter. Accuracy is ±3% from 30 Hz to 1 kHz. 5 kV breakdown rating.

(B) Y8100 DC/AC Current Probe $199
Battery-powered Hall-effect clamp-on probe with switch-selectable 200A or 20A current range, produces 2V full range output. For conductors up to 0.75 inches in diameter. Accuracy is ±2% of range from dc to 200 Hz.

(C) Y8101 Current Transformer $75
Measure ac current from 2A to 150A. Clamps over conductors up to 7/16 inches in diameter. Accuracy is ±2% of reading over 48 Hz to 10 kHz range for 10A to 150A currents.

(D) 80J-10 20A Current Shunt $30
Precision 0.01Ω current shunt will pass 10A continuously, 20A for one minute. Accuracy is ±0.25% from dc to 10 kHz.

(E) A81 Battery Eliminator $20
Lets you operate the 8020B, 8021B, 8022B, or 8024B without a battery. Included with 8030A-01 and 8040-01 for line operation and recharging battery. Available for 100, 115, 230V ac operation.

(F) 80T-H Touch-Hold Probe $45
For use with the Fluke 8010A, 8012A, or 8050A. For measuring voltage or resistance in hazardous, or hard-to-reach places. Touch a button on the probe to hold any reading.

(G) Y8140 Test Leads $18
Slim grips with retractable needlepoint tips.

(H) 83RF High Frequency Probe $49
dc output for high frequency ac voltage inputs from 0.25 to 30V rms. Frequency response is ±1.0 dB, 100 kHz to 100 MHz. Accuracy is ±1.0 dB above 1V input, ±1.5 dB below 1V input.

85RF High Frequency Probe $85
dc output for high frequency ac voltage inputs from 0.25 to 30V rms. Frequency response is ±0.5 dB from 100 kHz-100 MHz, ±1.0 dB from 100 MHz-200 MHz, and ±3.0 dB from 200 MHz-500 MHz. Accuracy is ±0.5 dB for inputs ⩾0.5V, ±1.0 dB for inputs <0.5V. Not shown. Looks the same as 83RF.

(I) 80K-40 High Voltage Probe $80
Measure up to 40 kV dc or 28 kV rms ac. Has 1000 MΩ input resistance. Dc accuracy is ±2% for the 20 kV to 30 kV range and decreases linearly to ±4% at 1 kV and 40 kV. Accuracy is ±5% at 60 Hz.

(J) 80K-6 High Voltage Probe $45
Extends voltage-measurement capabilities of an ac/dc voltmeter to 6000V dc or peak ac. Accuracy is ±1.0%, dc to 500 Hz, and ±2.0%, 500 Hz to 1 kHz.

(K) 80T-150C Temp Probe $120
Measure surface temperatures from -50°C to +150°C. Provides direct temperature conversion of 1 mV per degree. Resolution is 0.1°C. Withstands 350V dc or peak ac. Basic accuracy is ±2°C from -25°C to +125°C.

(L) 80T-150F Temp Probe $120
Same as 80T-150C except for Fahrenheit.

(M) Y8102 Thermocouple Probe $60
Especially designed for immersion measurements. Has Inconel shield surrounding the thermocouple bead. Temperature range is 0°C to 926°C. Accuracy is ±2.2°C from -20°C to 276°C and ±0.75% of reading from 276°C to 926°C. For 8024B.

(N) Y8103 Bead Thermocouple $25
Like Y8104 attached to four-foot length of Teflon-insulated type K thermocouple wire with bead end. Fast response. Accuracy is ±2.2°C from -17.8°C to +260°C. For 8024B.

(O) Y8104 Thermocouple Term $10
For 8024B. Isothermal block and screw terminals for type K thermocouple wire.

(P) Y8105 Ruggedized Case $20
Provides maximum protection against rough handling and bad weather. For Fluke Handheld DMM's.

C86 Ruggedized Case $20
Not shown. Same as Y8105. For 8010A, 8012A and 8050A.

(Q) Y8205 Zippered Case $35
For 8000A, 8010A, 8012A, or 8050A. Has shoulder strap and pouch.

(R) C90 Zippered Case $10
Fabric-backed vinyl. Inside pocket holds test leads, operator's instruction card, etc. Loop handle also fits over belt. For 8020B, 8021B, 8022B and 8024B.

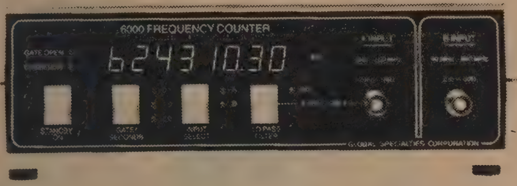
(S) Y8134 Safety Test Leads $20
Interchangeable tips. Alligator clips, spade lugs, and retractable hook tip as well as standard pointed tips. Banana plugs have insulating shield. Fit new handheld DMM's and 8050A. Includes pouch.

Y8133 Universal Test Leads $20
Like Y8134 except banana plugs don't have insulating shield. Not shown.

A53 Antenna $25
Telescopic antenna with BNC connector for electronic counters. Not shown.

Y7201 Attenuator/Filter $60
5X to 100X attenuator and switchable low pass filter, for counters. Not shown.

MODEL 6000 FREQUENCY COUNTER



A INPUT

Impedance: 1 megOhm at 25 pF.
Response: Less than 5 Hz to over 100 MHz.
Sensitivity: 10 mV rms from 5 Hz to 1 MHz; 25 mV rms from 1 MHz to 50 MHz; 40 mV rms from 50 MHz to 100 MHz.
Max. Input Voltage: 280 V rms from 5 Hz to 160 Hz; 120 V rms from 160 Hz to 16 kHz; 14 V rms from 16 kHz to 470 kHz; 7 V rms from 470 kHz to 100 MHz.

B INPUT

Impedance: 50 Ohms at 10 pF.
Response: Less than 40 MHz to over 650 MHz.
Sensitivity: 50 mV rms from 40 MHz to 100 MHz; 100 mV rms from 100 MHz to 600 MHz; 150 mV rms from 600 MHz to 650 MHz.
Max. Input Voltage: ±5 V peak.
Reference: ±time base error × frequency ±trigger error ±1 LSB.

$$\text{Trigger error} = \frac{\text{p-p noise V on input}}{\text{signal slope (VS)}}$$

Accuracy: Time Base—3.579545 MHz crystal oscillator, ±1 ppm from 0° to +40° C ambient. Less than 4 ppm per year. Optional Time Base—3.579545 MHz crystal oven oscillator, ±0.1 ppm from 0° to +40° C ambient. Less than ±1 ppm per year.
Controls: Standby/On, Gate Time Select (0.1, 1.0, 10 secs.), A/B input selector, Lo Pass Filter in/out.
Display: 8 digit, 7 segment, 0.43" LED display, decimal point indicates frequency in kHz, leading-zero blanking; discrete overflow (counter overflow); and gate LED's.
Power: 105-135 VAC, 57-63 Hz, 15 VA max. (215-250 VAC, 50-60 Hz version also available.) Standby power, 6 VA max.
Dimensions: 3" × 10" × 7" (H. × W. × D.), (75 × 254 × 178 mm).
Weight: 3.5 lbs. (1.6 Kg.).
Operating Temperature: 0° to +40° C.
Model 6000 Frequency Counter—Net Each **$399.95**
Model 6500 Frequency Counter with Crystal Oven—Net Each **$449.95**

6001 FREQUENCY COUNTER

6001 FREQUENCY COUNTER
A INPUT
B INPUT
INPUT SELECT
LO PASS FILTER

A INPUT:

Impedance: 1 MegOhm, 25 pF.
Response: 5 Hz to 100 MHz.
Sensitivity: 40 mV rms from 5 Hz to 1 KHz; 30 mV rms from 1 to 100 KHz; 10 mV rms from 100 KHz to 10 MHz; 40 mV rms from 10 to 60 MHz; 120 mV rms from 60 to 90 MHz; 200 mV rms from 90 to 100 MHz.

B INPUT:

Impedance: 50 Ohms, 10 pF.
Response: 40 MHz to over 650 MHz.
Sensitivity: 75 mV rms from 40 to 500 MHz; 100 mV rms from 500 to 600 MHz; 250 mV rms from 600 to 650 MHz.

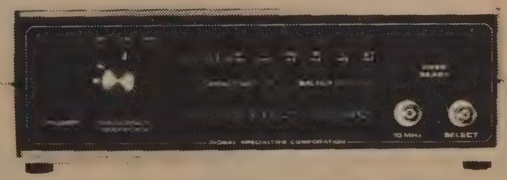
EXTERNAL TIMEBASE INPUT:

Impedance: 50 Ohms, 10 pF.
Sensitivity: TTL levels 0.8 to 2.2 V pk or 2.5 V rms sine wave from 1 to 25 MHz.
Timebase Output Frequency: 10 MHz; crystal oven oscillator; 0.5 to 2.5 V pk; TTL compatible.
Frequency Mode: Display indicates frequency in MHz.
Scaling Mode: Multiplies input frequency by a factor of 0.1 to 2.5.
Display: 8-digit, 7-segment, 0.43" LED. Decimal point indicates frequency in MHz, lead zero blanking. Discrete LEDs indicate Overflow, Gate and Oven Ready.
Operating Temperature: 0-40° C.
Power Required: 105-135 VAC, 57-63 Hz, 18 VA max.; 215-250 VAC, 50-60 Hz optional.
Size: 3" h. × 10" w. × 7" d.
Weight: 3 lbs.
Model 6001 650 MHz Frequency Counter—Net Each **$525.00**

MODEL LM-3 TRIGGERABLE LOGIC MONITOR

Main Input: 40 channels through front-panel connector, 24" mating ribbon cable and 40 easy-clips: DC coupled.
Input Voltage: ±18 V max.
Input Impedance: 0.5 MegOhm, 6 pF at connector; 0.5 MegOhm, 30 pF with cable.
Response: Min. pulse width, 100 nsec; max. trigger frequency, 5 MHz.
Sensitivity: DC turn-on threshold voltage adjustable from −5 to +10 VDC.
Trig In: Front panel BNC. Slope switch selects +/− edge. Threshold identical to and tracks with main inputs.
Vcc In: Samples Vcc of circuit under test through front-panel banana jacks.
Output: Threshold Voltage test point; accepts Voltmeter probe; represents internal threshold Voltage within ±2%.
Threshold Reference: Threshold Voltage for the 40 input channels and the Trigger input for various settings of the Threshold Mode selector are determined as follows: TTL, Preset to 2.2 ±0.1 VDC, any channel may vary ±200 mV from reference; CMOS, Vcc input samples Voltage of circuit under test, threshold determined as 70% of Vcc; Variable, front-panel Threshold Set control adjust threshold over continuous −5 to +10 VDC range.
Run Mode: Data display follows input data; Ready LED lights up.
Retrig Mode: Ready LED lights up, data display follows input data until either a pulse transition appears at Trigger input or the Manual pushbutton is pressed, freezing data display and turning Ready LED off. Display updates with each new data on each subsequent Trigger pulse or Manual event; data must be stable a min. of 20 nsec before and 80 nsec after specified Trigger edge.
Latch Mode: Ready LED lights up. Data display follows input until next Trigger edge or Manual event occurs, which freezes data and turns off Ready LED; all further Manual or Trigger inputs are ignored until ARM pushbutton is pressed. Data must be stable a min of 20 nsec before and 80 nsec after specified Trigger edge.
Display: 40 discrete LEDs, legend indexed to input connector and input channels: LEDs in positions 8, 16, 24, 32 and 40 are green; all others are red.
Operating Temperature: 0-40° C.
Power Required: 105-135 VAC, 57-63 Hz, 40 VA max.; 215-250 VAC, 50-60 Hz optional.
Size: 4" h. × 10" w. × 7" d.
Weight: 5 lbs.
Model LM-3 Triggerable Logic Monitor—Net Each **$699.00**

MODEL 4401 FREQUENCY STANDARD



Outputs: Two outputs; 10 MHz, Select. DC coupled; BNC connectors; 50-ohm TTL-compatible square wave, buffered to drive up to 10 TTL loads; short-circuit protected; 20 nsec rise and fall into 50 ohms.
Reference Timebase: 10 MHz crystal oven oscillator; ±0.5 ppm from zero to 40° C.
Aging: Less than 1 ppm/year.
Display: Eight discrete LEDs indicate selected frequency decade; selected frequency LED also serves as power pilot; additional LED indicates Oven Ready.
Power Required: 105-135 VAC, 57-63 Hz, 5 VA max.; 215-250 VAC, 50-60 Hz optional.
Size: 3" h. × 10" w. × 7" d.
Weight: 2 lbs.
Model 4401 Frequency Standard—Net Each **$298.00**

GLOBAL
GLOBAL SPECIALTIES

LOGIC PROBES

MODEL LP-1 LOGIC PROBE

- **Use to 50 nanoseconds, 10 MHz**
- **Circuit powered and portable**
- **Compatible with most logic families**

Instant readings of logic levels for DTL, TTL and CMOS.
Input Impedance: 0.12 MegOhm.
Min. Detectable Pulse: 50 nsec.
Max. Input Signal Frequency: 10 MHz.
Pulse Detector (LED): High-speed train or single event.
Pulse Memory: Pulse or level transition detected and stored.
Input: Protected to 50 VDC, 117 VAC for 15 sec.
Controls: Threshold Select and Pulse Memory.
Display: Discrete High, Low, Pulse LEDs.
Model LP-1 Digital Logic Probe—Net Each **$50.00**

MODEL LP-3 LOGIC PROBE

- **High speed—use to 6 nanoseconds, 70 MHz**
- **Pulse memory stores pulse events**

Instant readings of logic levels for DTL, TTL and CMOS.
Input Impedance: 1.2 megOhm.
Min. Detectable Pulse: 6 nsec.
Max. Input Signal Frequency: 70 MHz.
Pulse Detector (LED): High-speed train or single event.
Pulse Memory: Pulse or level transition detected and stored.
Input: Protected to 50 VDC, 117 VAC for 15 sec.
Controls: Threshold Select and Pulse Memory
Display: Discrete High, Low, Pulse LEDs.
Model LP-3 Digital Logic Probe—Net Each **$77.00**

ACCESSORIES FOR LP-1, LP-2, LP-3, LP-4, AND LPK-1

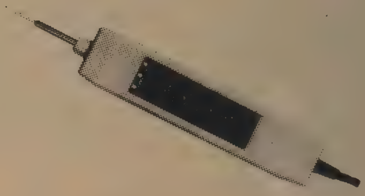
Model LDA-1 Probe Tip—1 1/2" probe tip. Net Each	**$1.25**
Model LDA-2 Probe Tip—2 1/2" probe tip. Net Each	**$1.25**
Model LDA-3 Easy-Clip Jumper—3" jumper, threaded to replace probe tip. Net Each	**$5.30**
Model LDA-4 Easy-Clip Ground Wire—Plugs into connector adjacent to probe tip. 3.0". Net Each	**$5.65**
Model LDA-5 Alligator Clip Ground Wire—Plugs into connector adjacent to probe tip. 3.0". Net Each	**$3.70**
Model LDA-6 Easy-Clip Adapter—Slips over probe tip. Net Each	**$4.95**
Model LDA-7 Banana Plug Adapter—Threaded to replace probe tip connector. Net Each	**$2.00**
Model LDA-8 Power Cord With Alligator Clips—36" coaxial DC power connector to alligator clips. Net Each	**$3.70**
Model LDA-9 Power Cord With Easy-Clips—36" coaxial DC power connector to easy-clips. Net Each	**$8.70**
Model LDA-A Accessory Assortment—Includes LDA-2, LDA-3, LDA-4, LDA-5, LDA-6, LDA-7 and LDA-9. Net Each	**$21.90**
Model LDA-10 BNC Input Adapter—Net Each	**$10.00**
Model LDA-11 Wire Wrap Pin Input Adapter—3" long. Net Each	**$4.95**
Model LDA-12 Wire Wrap Pin Ground Adapter—3" long. Net Each	**$4.95**
Model LDA-B Accessory Assortment—Includes LDA-1, LDA-3, LDA-5, LDA-8, LDA-10, LDA-11, and LDA-12. Net Each	**$28.50**

MODEL LP-2 LOGIC PROBE

- **High, constant input impedance minimizes circuit loading**
- **Use to 300 nanoseconds, 1.5 MHz**
- **Perfect for CMOS**

Economy version of Model LP-1.
Input Impedance: 1 megOhm.
Min. Detectable Pulse: 300 nsec.
Max. Input Signal Frequency: 1.5 MHz.
Pulse Detector (LED): High-speed train or single event.
Input: Protected to 50 VDC, 117 VAC for 15 sec.
Controls: Threshold Select.
Display: Discrete High, Low, Pulse LEDs.
Model LP-2 Digital Logic Probe—Net Each **$32.00**

MODEL LPK-1 LOGIC PROBE



- **HI, LO, PULSE indicators**
- **No operating controls**
- **Universal logic thresholds 30%, 70% of V_{CC}**

Hi, Lo, pulse indicators. Universal logic threshold.
Input Impedance: 0.3 MegOhm.
Min. Detectable Pulse: 300 nsec.
Max. Input Signal Frequency: 1.5 MHz.
Pulse Detector (LED): High-speed train.
Input: Protected to 50 VDC, 117 VAC for 15 sec.
Controls: None.
Display: Discrete High, Low, Pulse LEDs.
Model LPK-1 Digital Logic Probe—Net Each **$23.00**

MODEL LP-4 ECL LOGIC PROBE

- **High speed—3 nanoseconds, over 100 MHz**
- **2 position slide switch for PULSE or MEMORY latch modes**
- **Easy to interpret readout**
- **HI, LO, PULSE indicators**
- **Pulse memory stores pulse events**

Threshold Voltage, Positive Logic:
V_{EE} = −5.2 +.01 VDC at 25° C ±3° C.
Logic One (1): −1.10 ±0.5 VDC.
Logic Zero (0): −1.50 ±0.05 VDC.
V_{EE} = 5.2 ±5%, T_A 10° C to 40° C.
Logic One (1): −1.10 ±0.1 VDC.
Logic Zero (0): −1.50 ±0.1 VDC.
Input Impedance: Greater than 10K Ohms.
Input Pulse Width: 3 nanoseconds, min.
Input Pulse Repetition Rate: 100 MHz, min. (150 MHz typical at 50% duty cycle).
Input Overload Protection: ±100 VDC, continuous; ±220 VDC, transients; 120 VAC for 30 seconds.
Model LP-4 Digital Logic Probe—Net Each **$150.00**

GLOBAL SPECIALTIES

LOGIC MONITORS AND TEST INSTRUMENTS

MODELS LTC-1 AND LTC-2 TEST KITS

logic probe

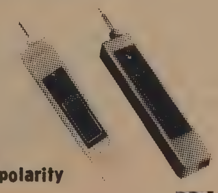
The increasing use and complexity of digital logic has created the need for portable and compact test equipment. The Logical Analysis Kits contain design/test/troubleshooting instruments that detect and locate logic problems, as well as component or mechanical failures, down to a specific IC pin. The Logic Pulser (the source) and the Logic Probe or Logic Monitor (detectors) instantly provide static and dynamic logic state analyses. These portable compact units save time in all phases of digital work.

Model LTC-1 Logical Analysis Kit—Complete with LP-1 Logic Probe, DP-1 Logic Pulser, LM-1 Logic Monitor, two LDA-1 Probe Tips, two LDA-2 Probe Tips, LDA-3 Easy-Clip Jumper, LDA-4 Easy-Clip Ground Wire, LDA-5 Alligator Clip Ground Wire, LDA-7 Banana Plug Adapter, two LDA-8 Power Cords, instruction manuals and custom vinyl carrying case. Net Each **$240.00**

Model LTC-2 Logic Analysis Kit—Same as Model LTC-1, except LP-3 Logic Probe replaces LP-1, and an additional LDA-5 is supplied. Net Each **$270.00**

MODEL DP-1 DIGITAL PULSER AND MODEL DPK-1 DIGITAL PULSER KIT

- **Circuit powered**
- **Digital signal injector**
- **Short circuit protected**
- **Handheld pulse generator**
- **Single pulse or 100 pps train**
- **Compatible with most logic families**
- **Senses state of node, presets pulse polarity**



DPK-1 DP-1

Input: Probe tip senses logic state of node, determined at 40% of Vcc; protected to ±50 VDC (DPK-1 not applicable). Impedance, minimum of 20 megOhms.
Output: DP-1, logic state of node sensed at probe tip by input circuit determines whether output pulse will source or sink current, low node is automatically pulsed to high (sourcing), high node to low (sinking); DPK-1, positive output pulse followed 30 msec later by a negative output pulse; DP-1/DPK-1, output is high impedance when not pulsing, can pulse into short circuit continuously without damage.
Pulse Width: DP-1—TTL 1.5 μsec ±30%; CMOS 10 μsec ±30%; DPK-1—TTL 1.5 μsec ±30%; CMOS 3 μsec ±30%.
Rise Time: 100 nsec.
Fall Time: TTL, less than 500 nsec at one TTL load; CMOS, less than 8 μsec, at 0.1 megOhm load.
Modes: Two modes chosen by single momentary pushbutton; One-Shot—pushbutton pressed for less than 1 second outputs single pulse to force node to opposite state; Pulse Train—pushbutton held for more than 1 second outputs 100 pps pulse train.
Controls: Pulse pushbutton, TTL/CMOS selector on DP-1 only.
Display: Discrete LED flashes once for single pulse, stays on for run mode for pulse train.
Power: DP-1—circuit powered from Vcc of circuit under test, 5-25 VDC; replaceable LDA-8 power lead plugs into probe coaxial DC connector, terminates in red and black, vinyl jacketed alligator clips; LDA-5 ground lead plugs into connector adjacent to probe tip, alligator clip connects to circuit ground near injection point for clean pulses; DPK-1—circuit powered from Vcc of circuit under test, 5-18 VDC; power leads wire directly into unit, cable terminates in red and black, vinyl jacketed alligator clips.
Size: 5 8" lg. × 1" w. × 0.7" d. **Weight:** 3 ozs.
Operating Temperature: 0 to +50° C.
Model DP-1 Digital Pulser—Complete with instruction manual, LDA-5 ground lead, LDA-8 power lead, and LDA-1 probe tip. Net Each **$83.00**
Model DPK-1 Digital Pulser Kit—Complete with construction manual, DA-1 probe tip. Net Each **$35.00**

MODEL LM-4 40-CHANNEL LOGIC MONITOR

- **Easy to use**
- **Bright LCD display**
- **Handheld—portable**
- **Multifamily compatibility**
- **40 independent input channels**

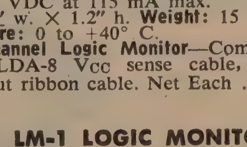
Input: 24" ribbon cable terminated in a 40-pin Proto-Clip test clip; impedance, 1 megOhm at 30 pF with 24" cable. Logic 1 Threshold (Switch Selectable): TTL, 2.2 V ±0.2 V; CMOS, 70% of sampled Vcc. Absolute Max. Input, +17, −10 VDC for 30 seconds. Max. Input (Operating), 0 to + Vcc. Reverse protected to −75 VDC.
Readout: 40-segment, numerical, low-power, high-intensity, liquid crystal display.
Controls: TTL/DTL—CMOS switch sets threshold levels corresponding to selected logic family.
Power: Derived from circuit under test, 4.28 to 15 VDC, current drain 10 mA typ.
Storage Temperature: −30° C to +80° C.
Operating Temperature: 0 to +50° C.
Size: 5.9" lg. × 3.2" w × 1.2" h. **Weight:** 12 ozs.
Model LM-4 Logic Monitor—Includes 24" ribbon cable, instruction manual, and high impact plastic carrying case. Net Each **$199.00**

MODEL LM-2A 16-CHANNEL LOGIC MONITOR

- **Monitors up to 16-pin IC's**
- **Ideal for troubleshooting**
- **Bright LED logic state display for each pin**
- **Multi-logic family capability**

Input: 16 channels thru right angle header, 24" mating ribbon cable, and 16-pin test clip. Impedance, 1 megOhm. Voltage Range, ±26 VDC max.
Vcc Input: Samples Vcc of circuit under test thru case-mounted connector. Impedance, more than 20 kOhm. Voltage Range: −0.7 VDC to 20 VDC max.
Threshold References: Threshold voltages for 16 input channels are determined by the setting of the threshold mode selector. TTL, 2.3 VDC to ±0.1 VDC; CMOS, 70% Vcc ±0.2 VDC; Variable, adjustable 1.0 VDC to 9.0 VDC.
Controls: Threshold Mode Select, Variable Threshold.
Connectors: Vcc sense, power input, threshold voltage reference test point.
Display: 16 high intensity LED's; on when corresponding input exceeds threshold; off when input is below threshold or floating, Partial intensity indicative of signal duty cycle.
Power Required: 9.3 VDC at 115 mA max.
Size: 5.9" lg. × 3.2" w. × 1.2" h. **Weight:** 15 ozs.
Operating Temperature: 0 to +40° C.
Model LM-2A 16-Channel Logic Monitor—Complete with instruction manual, LDA-8 Vcc sense cable, MMAC2 AC adapter, LMA-8 input ribbon cable. Net Each **$150.00**

MODEL LM-1 LOGIC MONITOR

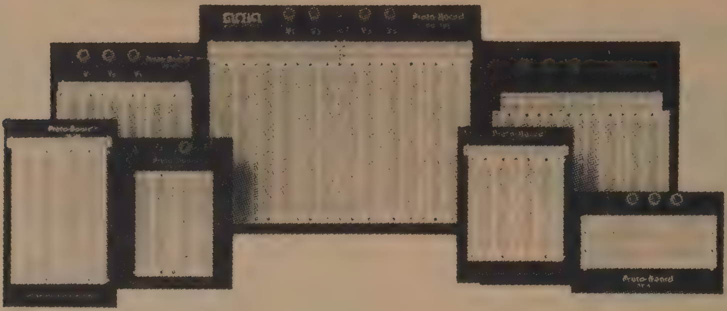


Input: Clips to 16 pins of DIP.
Input Impedance: 0.1 megOhm.
Reference: Threshold Voltage, reference determines turn-on point for each of 16 discrete LEDs. Threshold corresponds to DTL, TTL or other logic families whose logic 1 to logic 0 differentials are 5-7 Volts.
Threshold: 2 ±0.2 VDC.
Mode: Single mode, single logic threshold.
Display: 16 discrete LEDs, numbered 1-16, each light up when logic 1 level appears at corresponding pin of DIP IC clip.
Power Required: 4 VDC min., 15 VDC max. across any two inputs; derived from circuit under test. Max. current drain, 200 mA at 10 VDC.
Operating Temperature: 5-45° C.
Size: 4" l. × 2" w. × 1 1/2" d.
Weight: 3 oz.
Model LM-1 16-Channel Logic Monitor—Net Each **$79.00**

GLOBAL SPECIALTIES

PROTO-BOARDS

PROTO-BOARD® SOLDERLESS BREADBOARD SYSTEM

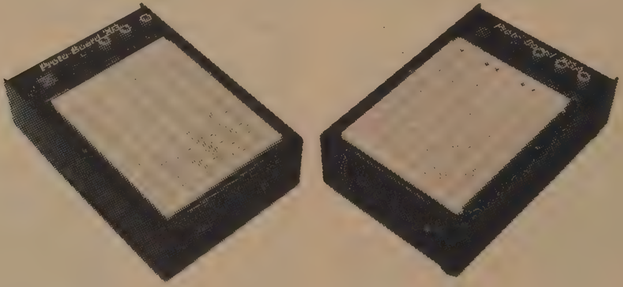


- 10 models offered, 3 in kit form—3 with built-in power supplies
- QT sockets and Bus strips mounted on metal back plates
- Ideal for prototyping and custom circuit applications to and past 50 MHz

Model	PB-6	PB-100	PB-101	PB-102	PB-103	PB-104	PB-105	PB-203	PB-203A	PB-203AK
Sockets	1/QT47S	2/QT35S	2/QT35S	2/QT47S	3/QT47B	4/QT59S	6/QT59S	3/QT59S	3/QT59S	3/QT59S
Bus Strips	2/QT47B	1/QT35B	4/QT35B	1/QT35B 3/QT47B	1/QT47B 4/QT59B	7/QT59B	4/QT47B 7/QT59B	4/QT59B 1/QT47B	4/QT59B 1/QT47B	4/QT59B 1/QT47B
IC Capacity*	6	10	10	12	24	32	48	24	24	24
Terminals	126	152	188	248	450	612	912	450	450	450
Tie Points	630	760	940	1240	2250	3060	4560	2250	2250	2250
Binding Posts	4	2	1	1	4	4	5	4	4	4
Backplate	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Length	6"(152mm)	6"(152mm)	6"(152mm)	7.4" (187mm)	9"(229mm)	9.8" (249mm)	9.2" (234mm)	9.8" (248mm)	9.8" (248mm)	9.8" (248mm)
Width	4"(102mm)	4.5" (114mm)	4.5" (114mm)	4.5" (114mm)	6"(152mm)	8"(203mm)	11.4" (290mm)	6.6" (168mm)	6.6" (168mm)	6.6" (168mm)
Height	1.4"(36mm)	1.4"(36mm)	1.4"(36mm)	1.4"(36mm)	1.4"(36mm)	1.4"(36mm)	1.4"(36mm)	3.3"(83mm)	3.3"(83mm)	3.3" (83mm)
Weight	7 ozs.	7.5 ozs.	9 ozs.	10 ozs.	21 ozs.	29 ozs.	29 ozs.	5 lbs.	5.5 lbs.	5.5 lbs.
Powered	No	No	No	No	No	No	No	Yes	Yes	Yes
Shipped	Kit	Kit	Assembled	Assembled	Assembled	Assembled	Assembled	Assembled	Assembled	Kit
Net Each	**$19.95**	**$21.95**	**$28.95**	**$34.95**	**$59.95**	**$77.00**	**$115.50**	**$133.00**	**$174.00**	**$149.95**

*Based on 14-pin size.

MODEL 203 SERIES POWER SUPPLY SPECIFICATIONS



Wire Size:
#22 AWG wire preferred; component leads with diameters from 0.010" to 0.033" acceptable, 0.015" to 0.032" recommended; prepared wire kit WK-1 is available.

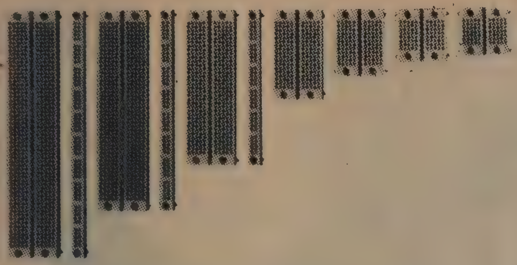
Resistance:
Initial contact resistance is less than 0.5 milliOhm; after multiple uses, this reduces to less than 0.4 milliOhm.

	+5 VDC (PB-203, PB-203A, PB-203-AK)	+15 VDC (PB-203A, PB-203-AK only)	−15 VDC (PB-203A, PB-203-AK only)
Voltage	5.0 ±0.2 VDC	Factory set to +15 VDC (PB-203A), adjustable internally +5.5-18 VDC	Factory set to −15 VDC (PB-203A), adjustable internally −5.5-18 VDC
Current	1.0 Amp max., current limited	0.5 Amp max. at +15 VDC	0.5 Amp max. at −15 VDC
Regulation	Better than 0.8% load regulation, +0.02%/°C	Better than 1% load regulation, ±0.04%/°C	Better than 1% load regulation, ±0.04%/°C
Ripple	Less than 4 mV p-p at 1 Amp	Less than 10 mV p-p at 0.5 Amp	Less than 10 mV p-p at 0.5 Amp
Controls	Power switch with pilot light	Power switch with pilot light	Power switch with pilot light

GLOBAL SPECIALTIES

BREADBOARDS

QUICK TEST SOCKETS AND BUS STRIPS



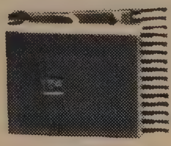
Universal solderless breadboarding system includes Quick-Test sockets and bus strips. Socket terminals are arranged with two rows of five pre-connected tie points running crosswise. Bus strip terminals are arranged in two rows of five pre-connected tie points running lengthwise. Base is molded of high-temperature plastic. Contacts are pre-stressed, spring-loaded, nickel silver alloy; accept wire sizes .015" to .032". Units feature snap-lock mechanism for mating two or more units together, end to end.

SPECIFICATIONS AND PRICING

Model	Strip Length (Ins.)	Strip Width (Ins.)	Mount Dimen. (Ins.)	Tie Points	Term. Clips	IC Qty. (14-pin)	Net Each
QT-59S	6.5	1.32	6.2	590	118	8	$12.50
QT-59B	6.5	.36	6.2	100	20	.....	2.99
QT-47S	5.3	1.32	1	470	94	6	10.24
QT-47B	5.3	.36	5	80	16	.....	2.59
QT-35S	4.1	1.32	3.8	350	70	5	8.50
QT-35B	4.1	.36	3.8	60	12	.....	2.25
QT-18S	2.4	1.32	2.1	180	36	2	4.50
QT-12S	1.8	1.32	1.5	120	24	1	3.75
QT-8S	1.4	1.32	1.1	80	16	1	3.00
QT-7S	1.3	1.32	1	70	14	1	2.75

PROTO-CLIP^{TM} CONNECTORS

PC-40



PC-24

PC-14

PC-16

The clip-on, short-proof way to bring up leads from crowded circuit boards for testing, signal tracing, signal injection, etc. Nickel-silver contacts give low-resistance connections to all IC leads; molded-in spacers prevent shorts. Test probes or clip leads connect to slip-proof teeth on top. All plastic construction eliminates troublesome springs and pivots.

Model No.	Description	List Price
PC-14	14-pin standard DIP spacing	$ 3.50
PC-16	16-pin standard DIP spacing	3.75
PC-24	24-pin wide LSI DIP spacing	9.00
PC-40	40-pin wide LSI DIP spacing	14.00

HPA-1 BINDING POSTS

Universal binding posts accept bare wires, banana plugs, alligator clips and spade, ring or hook connectors. Assortment includes 5 each red and black binding posts, 20 insulated shoulder washers and 20 hex mounting nuts.
No. HPA-1 Binding Post Assortment—Net Each **$4.99**

MODEL QHA-1 QUICK HOOK ASSORTMENT

Contains 10 insulated quick hooks with tapered plastic housing for easy access to tight areas. Spring tension tips for firm grip on component leads, etc. **Size:** 1.7" long, 5/16" dia.
Model QHA-1 Quick Hook Assortment—Net Each **$9.50**

EXPERIMENTOR BREADBOARDING SOCKETS

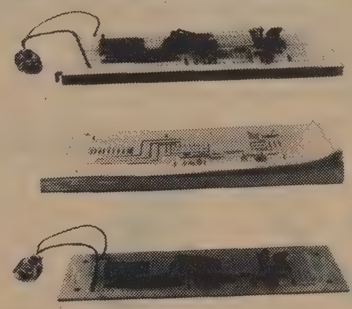
Solderless breadboarding sockets accept DIP's, transistors, LED's, resistors, capacitors, and most all types of discrete components, as well as AWG 22-30 solid hookup wire. An interlocking system permits boards to be snapped together for optimum configuration for any circuit. Sockets are molded of durable, abrasion resistant material and feature prestressed, nickel-silver contacts. A vinyl plastic backing prevents shorts when sockets are mounted on metallic surfaces. Tie-points are alphanumerically identified for faster wiring and circuit tracing. Sockets can be used loose or fastened to a mounting surface.

SPECIFICATIONS AND PRICING

Model	Center Channel (Ins.)	Strip Lgth. (Ins.)	Strip Width (Ins.)	Tie Pts.	Term. Clips	IC Cpty.	Net Each
EXP-600	0.6	6	2.4	550	110	3*	$14.75
EXP-300	0.3	6	2.1	550	110	6†	12.00
EXP-4B	...	6	1	160	32	...	4.75
EXP-650	0.6	3.6	2.4	270	54	1§	8.75
EXP-350	0.3	3.6	2.1	270	54	3†	6.75
EXP-325	0.3	1.9	2.1	130	26	1‡	3.50

*28-pin. †14-pin. §40-pin. ‡22-pin.

THE EXPERIMENTOR SYSTEM^{TM}



EXPERIMENTOR SCRATCHBOARD^{TM} WORKPADS

Start breadboarding even before parts are assembled. Or, sketch a working breadboard and save it for later. Pre-printed pads of paper with a light blue breadboard hole pattern give you a head start.

EXPERIMENTOR MATCHBOARD^{TM}

Go from breadboard to finished PC board non-stop. Pre-drilled, pre-etched, copper-clad PC boards speed the work. The component side is silk-screened with alphanumeric index.

Model EXP-300PC—One Matchboard. Net Each **$2.70**
Model EXP-302—Three 50-sheet Scratchboard workpads. Net Each **$3.30**
Model EXP-303—Two Matchboards and one EXP-300 Breadboard. Net Each **$16.00**
Model EXP-304—Two Matchboards, one EXP-300 Breadboard and one Scratchboard. Net Each **$17.00**
Model EXP-305—Accessory Mounting Panel locks into EXP-600, EXP-300, or EXP-4B solderless breadboards for convenient mounting of accessories. Net Each **$1.69**

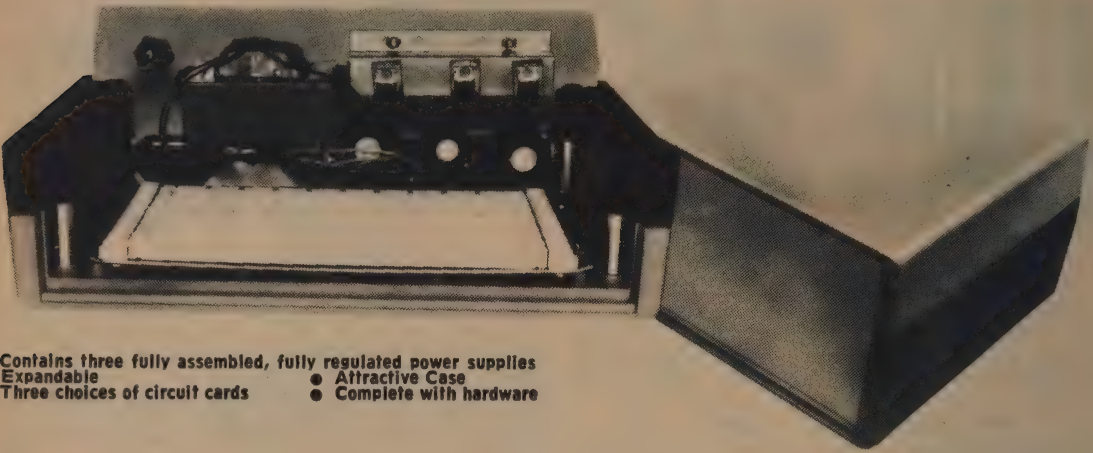
WK-1 WIRE JUMPER KIT

For use with Quick Test sockets and bus strips. Experimentor solderless breadboards, Proto-Boards, Matchboard, etc. AWG-22 insulated solid wire, pre-cut, pre-stripped and pre-formed. 14 color-coded lengths include 0.1 through 1 inch (in 0.1" increments), 2, 3, 4 and 5 inches; length does not include 1/4" ends, stripped and bent 90 degrees. Jumpers come in compartmented plastic case with hinged lid.
Model WK-1 Wire Jumper Kit—Net Each **$10.00**

GLOBAL SPECIALTIES

PROTOTYPING SYSTEMS AND INSTRUMENT CASES

THE IDEA BOX



- Contains three fully assembled, fully regulated power supplies
- Expandable
- Three choices of circuit cards
- Attractive Case
- Complete with hardware

MODEL IDB-100

Gray plastic case shell halves; black extenders; front and back fitted aluminum plates; four vinyl feet; mounting hardware. Power supply mounted on back plate; includes +5 VDC at 1 Amp max., +15 VDC at 0.5 Amp max. and −15 VDC at 0.5 Amp max. outputs. Power switch unwired and unmounted. Contains Model IDB-110 solderless breadboard circuit card.
Power Required: 108-130 VAC, 60 Hz; 215-250 VAC, 50-60 Hz optional.
Size: 7″ l. × 10″ w. × 4″ d.
Weight: 22 oz.
Model IDB-100 Idea Box—Net Each **$189.95**

MODEL IDB-102

Same as Model IDB-100, except pre-etched, pre-drilled PCB circuit card Model IDB-111 replaces Model IDB-110; same hole and connection pattern.
Model IDB-102 Idea Box—Net Each **$169.95**

MODEL IDB-103

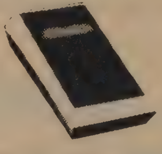
Same as Model IDB-100, except single-sided, blank foil PCB circuit card Model IDB-112 replaces Model IDB-110. Usable printed board area, 8″ × 4″.
Model IDB-103 Idea Box—Net Each **$149.95**

ACCESSORIES FOR IDEA DOXES

Model IDB-110 Solderless Breadboard Circuit Card—Includes 2 QT-59S sockets, 2 QT-35B bus strips and 3 QT-59B bus strips, mounted on a phenolic backboard. Net Each **$44.95**
Model IDB-111 Single-Sided PCB—Printed circuit equivalent of Model IDB-110. Etched with contact pattern and connected terminal bus strips. Net Each **$34.95**
Model IDB-112 Single-Sided Blank Foil PCB—For making custom printed circuit cards. Net Each **$9.95**
Model IDB-113 Blank Aluminum Front Panel Replacement—Net Each **$6.75**
Model IDB-114 Printed Circuit Layout Paper—Contains 2 pads of 50 sheets each. Each sheet has hole and connection patterns of Models IDB-110 and IDB111. Net per 2 Pads **$4.95**

INSTRUMENT CASES AND HARDWARE

Model CTP-1


Model CTH-1

DMC-2

DMC-1

Model CBP-1

CTB-1

CTB-2

MODEL CTP-1 THE PROBE CASE

A gray plastic case for housing probe-like instruments. Measures 5.8″ long, 1.0″ wide and 0.7″ thick. Includes 3′ power cord, probe tip, probe tip connector, assembly screws and a perf board pre-cut to size. This is the same case used to house the Model LPK-1 Logic Probe.
Model CTP-1 Instrument Case—Net Each **$7.00**

MODEL CTH-1 THE HANDHELD CASE

A gray plastic case for housing portable, hand-held instruments. Measures 3″ wide, 6″ long and 1 1/2″ thick. Complete with assembly screws, hex antenna connector, red transparent plastic front panel, subminiature phone jack, and a battery compartment cover. This is the same case used to house Models MAX-50 and MAX-550 Frequency Counters.
Model CTH-1 Instrument Case —Net Each **$8.75**

DESIGN MATE™ CASES

Model DMC-1—1-piece, high impact, insulated plastic top with metal bottom. **Size:** 7.5″ w. × 6.75″ d. × 3.25″ h. max. Includes mounting screws. Net Each **$8.75**
Model DMC-2—Same features as DMC-1 except, slightly more compact. **Size:** 6.0″ w. × 5.63″ d. × 3.0″ h. max. Net Ea. **$8.50**

FLIP-UP LEG

One set contains flip-up black plastic leg and four matching rubber feet.
No. 11-0094 Flip-Up Leg—Net Each **$2.50**

MODEL CBP-1 THE PORTABLE CASE

A gray plastic case for housing portable radios, transceivers, instruments, etc. Complete with case, battery compartment cover, red transparent plastic front panel, four rubber feet, screws, power jack and two fitted switchplates. Measures 1.75″ thick, 5.63″ wide and 7.75″ long. This is the same case used to house the Model MAX-100 Frequency Counter.
Model CBP-1 Instrument Case—Net Each **$12.95**

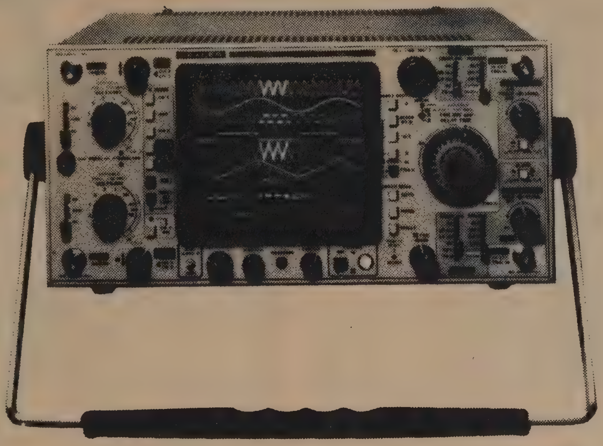
MODEL CTB-1 THE BENCHTOPPER CASE

A gray plastic case for housing instrumentation, audio equipment, amateur and professional equipment. Small computers and peripherals, intercoms, radios and more. Measures 10″ wide, 3″ high and 7″ deep. Comes complete with front and back blank aluminum plates, four rubber feet and assembly hardware. This is the same case used to house the Model 2001 Function Generator and Model 4001 Pulse Generator.
Model CTB-1 Instrument Case—Net Each **$19.95**

MODEL CTB-2 THE BENCHTOPPER II CASE

Same as Model CTB-1, except a black 1″ extender is added to each side to increase the height from 3″ to 4″.
Model CTB-2 Instrument Case—Net Each **$28.95**

MODEL LBO-518 100 MHz QUAD CHANNEL ALTERNATE TIME BASE OSCILLOSCOPE



The versatile LBO-518 100 MHz, quad channel, alternate time base oscilloscope features front panel 4 channel operation, simultaneous display of main and delayed time bases, and alternate channel triggering for viewing non-frequency related signals simultaneously. Separate, independent comprehensive triggering facilities for both the main and delayed time bases include HF reject, LF reject, video sync separator, alternate channel triggering and trigger lever control with preset, plus variable trigger hold-off, line triggering for observation of line related signal components, and auto, normal and single sweep modes. Separate vertical positioning and input connectors for 4 channel operation are front panel accessible, as are the main and delayed sweep intensity and trace separation controls. A dome mesh PDA CRT with 20 kV accelerating potential allows critical observation of fast rise-time signals with low repetition rates and similar events which are often difficult to observe due to limited trace brightness. The vertical input section features 0.5 mV sensitivity, 20 MHz bandwidth limiter, beam finder and add/subtract modes. While offering these additional capabilities, small size has been retained, allowing the LBO-518 to be stored in limited space for safe-keeping or travel.

SPECIFICATIONS

Vertical Deflection:
- **Bandwidth (−3 dB, 8 Div.):**
  - **DC:** DC to 100 MHz.
  - **AC:** 10 Hz to 100 MHz.
- **Rise Time:** 3.5 nsec.
- **Deflection Coefficients:**
  - **CH-1, CH-2;** 5 mV/cm to 5 V/cm in 10 steps, 1-2-5 sequence, continuously variable between steps; uncalibrated warning lights. X10 multiplier provides 0.5 mV/cm sensitivity up to 5 MHz.
  - **CH-3, CH-4:** 0.2 V/div., 2 V/div.
- **Accuracy:** ±3% from 0°C to +40°C; ±5% with X10 magnifier.
- **Input Impedance:** 1 megohm ±2%, 28 pF ±3 pF.
- **Max. Input:** 600 V (DC + AC peak).
- **Signal Delay:** 20 nsec.; leading edge can be observed.
- **Display Modes:** CH-1; CH-2; Alternate, Chop, Add, Subtract (CH-2 invert), Triple, Quad.
- **BW Limiter (20 MHz Bandwidth):** Limits vertical response to 20 MHz (−3 dB).
- **CH-1 Output (On Rear Panel):** 50 mV/cm deflection, into 50 ohms.

External Horizontal Deflection (X-Y Mode):
- **Input:** Via CH-1 vertical amplifier.
- **Bandwidth:** DC, DC to 3 MHz; AC, 10 Hz to 3 MHz.
- **Rise Time:** 117 nsec.
- **Phase Shift:** Less than 3% at 100 kHz.
- **Note:** All other external horizontal deflection specifications are identical to vertical deflection specifications.

Internal Horizontal Deflection (Sweep Mode):
- **Display Modes:** Main time base, main time base intensified by delayed time base, alternate main and delayed time bases, delayed time base.
- **Main Time Base:** 0.02 μs/cm to 0.5 s/cm in 23 steps, 1-2-5 sequence, continuously variable between steps; uncalibrated warning lights.
- **Delayed Time Base:** 0.02 μs/cm to 0.5 s/cm in 23 steps, 1-2-5 sequence.
- **X10 Magnifier:** Extends max. sweep rate to 2 ns/cm.
- **Acccuracy:** ±3%; ±5% with magnifier.

Main Time Base Triggering (CH-3):
- **Sources:**
  - **Internal:** CH-1, CH-2, Alt., Line.
  - **External:** Divide by 1 or divide by 10.
- **Modes:** Auto (20 Hz or better), Normal, Single.
- **Coupling:** AC, DC, HF reject, LF reject, TV-V, TV-H.
- **Slope:** + or −.
- **Sensitivity:**
  - **Internal:** 1.5 cm (0.5 cm, DC to 10 MHz).
  - **External:** 1.5 Vp-p (0.5 cm, DC to 10 MHz).
- **External Input:**
  - **Impedance:** 1 megohm, 30 pF.
  - **Max. Level:** 600 V (DC +AC peak).
- **Hold-Off:** Variable sweep hold-off control with B-ends-A switch.

Delayed Time Base Triggering (CH-4):
- **Sources:** CH-1, CH-2, Alternate, External.
- **Modes:**
  - **Immediate:** Delayed time base begins immediately after delay time.
  - **Triggered:** Delayed time base begins on first trigger after delay time.
- **Coupling:** DC, AC, HF reject, LF reject, TV-H.
- **Slope:** + or −.
- **Delay Time Jitter:** 1/20,000 of 10 times the main time base (A TIME/DIV) setting.
- **Note:** All other delayed time base triggering specifications are identical to main time base specifications.

Gate Output (A or B Sweep): +5 volt signal, timed to the Main Time Base sweep.

X-Axis (Intensity) Modulation:
- **Input Level:** TTL compatible; DC coupled.
- **Max. Input:** 50 V p-p.
- **Input Impedance:** 10,000 ohms.

Internal Calibrator:
- **Output:** 0.5 V p-p ±1%.
- **Wave Shape:** Square wave, 1 kHz ±2%.

CRT Display:
- **Phosphor:** P 31 (P 7 optional).
- **Graticule:** Internal, illuminated, 8 × 10 div. (1 div. = 1 cm).
- **Accelerating Potential:** 20 kV/2 kV.
- **Trace Alignment:** Front panel trace rotation control.

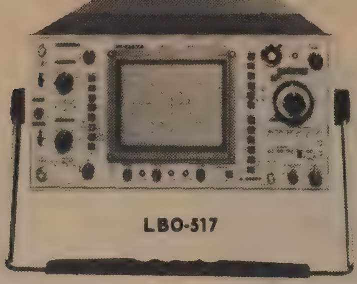
Operating Temperature: 0°C to +50°C.

Power Required: 100/120/200/220/240 VAC, 50/60 Hz, 65 watts.

Size: Approx. 12″ × 5.7″ h. × 15.7″ d.

Weight: 20.9 lbs.

Leader Model LBO-518 Oscilloscope—Net Each.............................. **$2295.00**



MODEL LBO-517 50 MHz DUAL TRACE DUAL TIME BASE OSCILLOSCOPE

The LBO-517 is a high-performance 50 MHz oscilloscope with 1 mV sensitivity up to 10 MHz and 5 mV sensitivity up to 50 MHz. Dual time bases permit detailed observations and accurate time interval measurements. The two time bases may be alternately displayed for simultaneous viewing of both the main time base (with displayed portion intensified) and the delayed time base for both input channels. Composite triggering permits stable triggering on two asynchronous signals. A trigger viewing function also displays the trigger waveforms for both time bases. The LBO-517 uses a new dome mesh CRT with 20 kV accelerating potential for bright, clearly defined displays, even with very low repetition rates.

SPECIFICATIONS

Vertical Deflection:
Bandwidth (−3 dB, 8 div.): DC: 0 Hz to 50 MHz; AC: 10 Hz to 50 MHz.
Rise Time: 7 nanoseconds.
Deflection Coefficients: 5 mV/cm in 10 steps, 1-2-5-sequence, continuously variable between steps, uncalibrated warning lights, × 5 multiplier provides 1 mV/cm sensitivity up to 10 MHz.
Accuracy: ±3% (0-40°C). ±5% with × 5 magnification.
Input Impedance: 1 megohm, ±2%, 35 pF ±3 pF.
Maximum Input: 600V (DC plus AC peak).
Signal Delay: Leading edge can be observed.
Display Modes: CH-1, CH-2, alternate, chop, add, subtract (CH-2 invert), triple, quad.
Common Mode Rejection Ratio: 26 dB at 1 KHz.
Output: CH-1 output on rear of panel of 0.1 mV/cm.
External Horizontal Deflection (X-Y mode):
Input: Via CH-1 vertical amplifier.
Bandwidth (−3 dB, 10 cm): DC: 0 Hz to 1 MHz; AC: 10 Hz to 1 MHz.
Phase Shift: Less than 3° at 100 KHz.
Internal Horizontal Deflection (sweep mode):
Display Modes: Main time base; main time base intensified by delayed time base; alternate main and delayed time base; delayed time base.
Main Time Base: 0.5 μs/cm in 22 steps, 1-2-5-sequence, continuously variable between steps, uncalibrated warning light.
Delayed Time Base: 0.05 μs/cm to 0.1 s/cm in 20 steps, 1-2-5-sequence.
Magnifier: × 10 magnifier extends maximum sweep rate to 5 ns/cm.
Accuracy: ±3% (±5% with magnifier).
Main Time Base Triggering (CH-3):
Sources: Internal: CH-1, CH-2, alt., line; external: ÷1 or ÷10.
Modes: Auto (Greater than or equal to 20 Hz); normal; signal.
Coupling: AC, DC, IF reject, HF reject, TV vertical, TV horizontal.
Slope: + or −
Sensitivity: Internal: 1.5 cm (0.5 cm, 30 Hz-10 MHz); external: 0.2 V p-p or 2 V p-p switchable.
External Input: Impedance: 1 megohm, 30 pF; Max. Level: 300 V (DC plus AC peak).
Hold-Off: Variable sweep hold-off control with B-ends-A-switch.
Delayed Time Base Triggering (CH-4):
Modes: Immediate: delayed time base begins immeditately after delay time. Triggered: Delayed time begins on the first trigger after the delay time.
Delay Time Jitter: 0.01% (1 part in 10,000) of 10 times the main time base (A TIME/DIV) setting. All other delay time base specifications are identical to main time base.
Z-axis (intensity) Modulation:
Input Level: TTL compatible, DC coupled.
Internal Calibrator:
Output: 0.5 V p-p. ±2%.
Wave Shape: Square wave, 1 KHz nominal.
CRT: P 31 phosphor; internal, illuminated graticule; 8×10 div.
Accelerating Potential: 20 KV.
Operating Temperature: 0-40° C.
Power Required: 100, 117, 200, 217, 234 VAC, ±13%, 50/60 Hz.
Size: 11 1/4" w. × 6 1/4" h. × 14 3/4" d.
Weight: 25 1/2 lbs.
Leader Model LBO-517 Dual Trace Oscilloscope—
Net Each **$1695.00**

MODEL LBO-523 35 MHz OSCILLOSCOPE

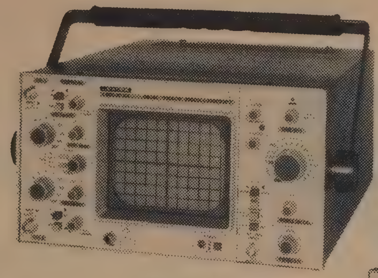
Designed for applications requiring medium bandwidth and extensive triggering facilities where costly features such as delayed sweep and signal delay lines are impractical. Trigger controls include variable hold-off, alternate channel triggering, HF reject, vertical and horizontal TV coupling and line source triggering. Vertical input sensitivity of 0.5 mV, Add and Subtract modes and CH-1 output connector add to units total capability. Bright PDA CRT with 7 kV accelerating potential plus an auto focus feature allows easy viewing of complex waveforms, even at highest sweep rates, without readjusting front panel controls. Comes with two LP-16AX switchable X1/X10 probes and instruction manual.

SPECIFICATIONS

Vertical Deflection:
Frequency Response (Bandwidth): DC, DC to 35 MHz; AC, 10 Hz to 35 MHz.
Rise Time: 10 nsec.
Sensitivity (Display Coefficients): 5 mV/div. to 5 V/div. in 10 calibrated steps, 1-2-5 sequence, continuously variable between steps.
Accuracy: ±3% (0 to 40° C); ±5% with X10 magnifier.
Input Impedance: 1 megohm, 30 pF.
Max. Input: 600 V (DC + AC peak).
Display Modes: CH-1, CH-2, Alternate, Chop, Add, Subtract (CH-2 invert).
Output: 0.1 mV/div. deflection at CH-1 output on rear panel.
External Horizontal Deflection (X-Y Mode):
Input: Via CH-1 vertical amplifier.
Bandwidth (−3 dB, 8 cm): DC, DC to 1 MHz; AC, 10 Hz to 1 MHz.
Rise Time: 350 nsec.
Phase Shift: Less than 3° at 100 kHz.
Note: All other external horizontal deflection specifications are identical to vertical amplifier.
Internal Horizontal Deflection (Sweep Mode):
Deflection Coefficient (Sweep Rate): 0.2 μsec./div. to 0.2 sec./div. in 19 calibrated steps, 1-2-5 sequence, continuously variable between steps.
Magnifier: Times 10 magnifier extends max. sweep rate to 20 nsec./div.
Accuracy: ±3%; ±5% with X10 magnifier.
Triggering:
Sources: CH-1, CH-2, Alternate, Line, External.
Modes: Auto and Normal.
Coupling: AC, HF Rej., TV-V, TV-H.
Slope: Plus or minus.
Sensitivty:
Normal:
Internal: 0.5 div. (30 Hz-10 MHz); 1.5 div. (2 Hz-20 MHz).
External: 0 2 V p-p (30 Hz-10 MHz); 0.6 V p-p (2 Hz-20 MHz).
Auto:
Internal: 0.5 div. (30 Hz-10 MHz); 1.5 div. (30 Hz-20 MHz).
External: 0.2 V p-p (30 Hz-10 MHz); 0.6 V p-p (30 Hz-20 MHz).
External Input: Max. input, 600 V (DC + AC peak).
Hold-Off: Variable sweep hold-off control permits stable triggering on complex waveforms.
Z-Axis (Intensity) Modulation:
Input Level: TTL Compatible.
Max. Input: 50 V p-p.
Internal Calibrator:
Output Level: 0.5 V p-p. ±2%.
Waveshape: Square wave; 1 kHz nominal.
CRT Display:
Phosphor: P 31.
Graticule: Internal, illuminated, 8×10 cm, rectangular.
Accelerating Potential: 7 kV/2 kV.
Trace Alignment: Front panel trace rotation control.
Power Required: 120/240 VAC, 50/60 Hz, 55 watts.
Size: 11 3/8" w. × 6 7/8" h. × 14 3/4" d.
Weight: 16 5 lbs
Leader Model LBO-523 35 MHz Oscilloscope—Net Ea. **$895.00**

"ALL LEADER PRODUCTS ARE BACKED BY A 2-YEAR WARRANTY"

LEADER Instruments Corp. Oscilloscopes


LBO-514A

LBO-513A

LBO-522

MODEL LBO-513A (SINGLE-TRACE) AND LBO-514A (DUAL-TRACE) 15 MHz 5" OSCILLOSCOPES

Low cost, high performance scopes for production, education and service applications. 5 mV sensitivity; 1 mV with 5X vertical magnifier. Sweep speeds of 0.2 sec./cm to 0.5 μsec./cm in 18 ranges plus 5X horizontal magnifier. Z-axis modulation. Bright, 8 × 10 cm display. Comprehensive triggering controls. Front panel X-Y mode with 1 mV sensitivity (Model LBO-514 only). P7 phosphor CRT available as an option. Model LBO-514 comes with two LP-16X deluxe 1:1/10:1 probes, two binding posts and a slow-blow fuse; Model LBO-513 comes with one of each.

SPECIFICATIONS

Vertical Amplifier:
Sensitivity: 5 mV/cm to 10 V/cm.
Attenuator: 11 ranges, 1-2-5 sequence; continuously variable.
Accuracy: ±3%.
Bandwidth: DC to 10 MHz.
Rise Time: 35 nsec.
Input Impedance: 1 megohm, 35 pF.
Max. Input Voltage: 600 volts (DC plus AC peak).
Mode (Model LBO-514 only): CH-1, Chop, Alt., CH-2.
Time Base:
Sweep Time: 0.2 sec./cm to 0.5 μsec./cm in 18 ranges, 1-2-5 sequence, continuously variable.
Accuracy: ±5%.
Magnifier: 5X (0.1 μsec./cm max. sweep speed).
Trigger:
Function: Normal/Auto.
Trigger Source: Internal (CH-1 or CH-2, selectable); External, plus or minus slope.
Sensitivity (Norm. or Auto.): Internal, 1 cm deflection; external, 200 mV p-p.
Frequency Response: Normal, 2 Hz to 10 MHz; Auto., 50 Hz to 10 MHz.
X-Y Operation (Model LBO-514 only):
Sensitivity: 5 mV/cm to 10 V/cm.
Frequency Response: X (CH-1), DC or 2 Hz to 800 kHz; Y (CH-2), DC or 2 Hz to 10 MHz.
X-Y Phase Difference: Less than 3° at 100 kHz.
Z-Axis (Intensity Modulation):
Sensitivity: 3 Vp-p or more.
Polarity: Negative.
Max. Input Voltage: 50 volts (DC plus AC peak).
Calibration Waveform: 0.5 Vp-p, ±3%, 1 kHz square wave.
Power Required: 115 VAC, 50/60 Hz, 33 VA.
Size: 11 1/2" w. × 5 1/2" h. × 15" d.
Weight: 13 lbs.

Leader Model LBO-513A Single-Trace Oscilloscope—
Net Each **$550.00**
Leader Model LBO-514A Dual-Trace Oscilloscope—
Net Each **$695.00**

MODEL LBO-522 20 MHz DUAL TRACE OSCILLOSCOPE

Input sensitivity of 0.5 mV allows observation of extremely low level signals. Large, 8×10 cm, rectangular CRT with internal graticule. Alternating trigger provides stable dipslay of two waveforms, unrelated in frequency, simultaneously. Full range of triggering controls, including HF reject to filter unwanted noise from display, and line triggering for observation of line related signal components. CH-1 rear panel output standard.

MODEL LBO-522 (CONT'D.)

SPECIFICATIONS

Vertical Deflection:
Bandwidth (−3 dB, 8 cm): DC, DC to 20 MHz; AC, 10 Hz to 20 MHz.
Rise Time: 17.5 nsec.
Deflection Coefficients: 5 mV/cm to 5 V/cm in 10 calibrated steps; 1-2-5 sequence; continuously variable between steps; 0.5 mV/cm by X10 magnifier.
Accuracy: ±3% (0 to 40° C); ±5% with X10 magnifier.
Input Impedance: 1 megohm, 30 pF.
Max. Input: 600 V (DC + AC peak).
Display Modes: CH-1, CH-2, Alternate, Chop, Add, Subtract (CH-2 invert.).
Output: CH-1 output on rear panel; 0.1 V/cm deflection.
External Horizontal Deflection (X-Y Mode):
Input: Via CH-1 vertical amplifier.
Bandwidth (−3 dB, 8 cm): DC, DC to 1 MHz; AC, 10 Hz to 1 MHz.
Rise Time: 350 nsec.
Phase Shift: Less than 3° at 100 kHz.
Note: All other extenral horizontal deflection specifications are identical to vertical deflection.
Internal Horizontal Deflection (Sweep Mode):
Deflection Coefficients (Sweep Rate): 0.2 μsec./cm to 0.2 sec./cm in 19 calibrated steps; 1-2-5 sequence; continuously variable between steps.
Magnifier: Times 5 magnifier extends max. sweep rate to 40 nsec./cm.
Accuracy: ±3%; ±5% with X5 magnifier.
Triggering:
Sources: CH-1, CH-2, Alternate, Line, External.
Modes: Auto and Normal.
Coupling: AC, HF Rej., TV-V, TV-H.
Slope: Plus or minus.
Sensitivity:
Normal:
Internal: 0.5 div., 30 Hz-10 MHz; 1.5 div., 2 Hz-20 MHz.
External: 0.2 V p-p, 30 Hz-10 MHz; 0.6 V p-p, 2 Hz-20 MHz.
Auto:
Intenral: 0.5 div., 30 Hz-10 MHz; 1.5 div., 30 Hz-20 MHz.
External: 0.2 V p-p, 30 Hz-10 MHz; 0.6 V p-p, 30 Hz-20 MHz.
External Input: 600 V (DC + AC peak) max.
Hold-Off: Variable sweep hold-off control permits stable triggering on complex waveforms.
Z-Axis (Intensity) Modulation:
Input Level: TTL compatible.
Max. Input: 50 V p-p.
Internal Calibrator:
Output Level: 0.5 V p-p ±2%.
Waveshape: Square wave; 1 kHz nominal.
CRT Display:
Phosphor: P 31.
Graticule: Internal, illuminated, 8×10 cm, rectangular.
Accelerating Potential: 2 kV.
Trace Alignment: Front panel trace rotation control.
Power Required: 120/240 VAC, 50/60 Hz, 55 watts.
Size: 11 3/8" w. × 6 7/8" h. × 14 3/4" d.
Weight: 16.5 lbs.
Accessories Supplied: Two LP-16AX switchable 1:1/10:1 probes and instruction manual.
Accessories Available: LP-2013 Probe Pouch, LC-2014 Protective Front Cover, LH-2015 Viewing Hood and LRA-508 Rack Mount Kit.

Leader Model LBO-522 Dual Trace Osciloscope—
Net Each **$795.00**

"ALL LEADER PRODUCTS ARE BACKED BY A 2-YEAR WARRANTY"

DIGITAL PANEL METERS

MODELS 2840, 2841

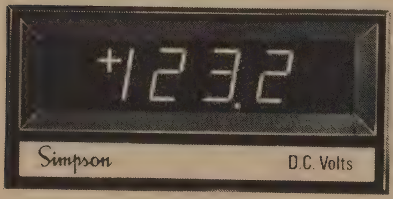
-19999
Simpson
DC Volts

Self-contained, panel-mounting, 4¼ digit DPMS (19999 counts) readout, especially suited for system applications where extra 0.02% accuracy and 10µV resolution are needed. Solid-state integrated circuit electronics, with bright red 7 segment 0.43" LED display, + and − indication, and fixed decimal point. Designed for 120/220/240 VAC 50–400, 4 VA operation. I/O edge connector included. **Accuracy:** (at reference conditions): DC Voltage: + (0.003% of reading + 0.1 digit)/°C; DC Current: + (0.01% of reading + 0.1 digit)/°C. **Sensitivity:** 10µV for 200 mV unit; 10nA for 200µA unit. **Input Bias Current:** 100 pA max. at reference. **Normal Mode Rejection:** 60 dB min. at 60 Hz. **Common Mode Rejection:** 120 dB min. with 1000 ohm unbalanced at 60 Hz. **Dimensions:** 3.9" wide × 1.93" high × 4.27" deep; panel cutout: 3.622" × 1.68". **Weight:** 1 lb.

Simpson Model No. 2840—Net Each **$199.05**

Simpson Model 2841—Also available with 5 VDC input in all ranges. Net Each **$199.05**

SERIES 2850



High reliability LSI circuitry and .55" planar gas discharge or 0.43" LED displays combine to provide digital panel meters with 0.1% of reading accuracy, automatic zero and polarity, 3½ digit readout, and BCD output. **Accuracy:** ±(0.1% of reading + 1 digit), from +15° C to +35° C. **Temperature Coefficient:** ±(0.01% of reading + 0.05 digit)/° C, from 0° C to +55° C. **Sensitivity:** 100µV for 200 mV unit, 10 nA for 20µA unit. **Resolution:** 1 part in 2000. **Operating Temperature Range:** 0° C to +55° C. **Power Required:** Models 2850 & 2852, 120/240 VAC, 50–400 Hz, 4 VA; Models 2851 & 2853, 5 VDC ± 5%, 700 mA. **Size:** 3.9" w. × 1.93" h. × 4.27" d. **Weight:** 1 lb. approx. **Panel Cutout:** Standard, 1.682" × 3.622"; IEC/DIN, 1.77" × 3.622"; other domestic, 1.682" × 3.92".

MODELS 2865, 2866

188.8
Simpson
D.C. Volts

High performance at a low price. 7-segment, 0.43" LED display with 0.1% reading accuracy. 3½ digit readout. Highly reliable LSI circuitry. Choice of 120/240 VAC, 50–400 Hz or 5 VDC operation. Input/output edge connector included. **Accuracy:** ±0.1% of reading +1 digit at reference conditions. **Temperature Coefficient:** ±0.01% of reading +0.05 digit per °C, from 0° C to 55° C. **Sensitivity:** 100 µV for 200 mV unit; 10 nA for 20 µA unit. **Resolution:** 1 part in 2,000. **Input Bias Current:** 100 pA max. at reference conditions. **Response Time:** Less than 800 msec. to rated accuracy. **Normal Mode Rejection:** 50 dB min. at 60 Hz. **Common Mode Rejection:** 90 dB min. with 1000 ohm unbalanced at 60 Hz. Automatic polarity with "−" indication. Decimal point fixed with range. **Operating Temperature Range:** 0° C to +55° C. **Power Requirements: Model 2865**—120 or 220 to 240 VAC ±10%, 50 to 400 Hz, 3 VA; **Model 2866**—5 VDC ±5% at 200 mA. **Size:** 3.9" w. × 1.93" h. × 4.27" d. **Weight:** 1 lb. approx

DC VOLTAGE

Range	Maximum Indication	Input Resistance µohm	Overload Protection	Model 2840
200 mV	+199.99 mV	100	250 V	**24800**
2 V	+1.9999 V	100	250 V	**24801**
20 V	+19.999 V	10	250 V	**24802**
200 V	+199.99 V	10	250 V	**24803**

DC CURRENT

Range	Maximum Indication	Voltage Drop	Max. I/I	Model 2840
200 µA	+199.99 µA	200 mV	20 mA	**24804**
2 mA	+1.9999 mA	200 mV	20 mA	**24805**
20 mA	+19.999 mA	200 mV	100 mA	**24806**
200 mA	+199.99 mA	200 mV	1 A	**24807**

DC VOLTAGE METERS

Range	Input Resis.	Overload Protection	Simpson No.			
			Model 2850	Model 2851	Model 2852	Model 2853
±199.9 mV	>100 meg	350 V	**22984**	**24101**	**24110**	**24119**
±1.999 V	>100 meg	350 V	**22976**	**24102**	**24111**	**24120**
±19.99 V	10 meg	350 V	**22977**	**24103**	**24112**	**24121**
±199.9 V	10 meg	350 V	**22978**	**24104**	**24113**	**24122**

DC CURRENT METERS

Range	Voltage Drop, FS	Max. Input Curr.	Simpson No.			
			Model 2850	Model 2851	Model 2852	Model 2853
±19.99 µA	200 mV	20 mA	**22979**	**24105**	**24114**	**24123**
±199.9 µA	200 mV	20 mA	**22980**	**24106**	**24115**	**24124**
±1.999 mA	200 mV	20 mA	**22981**	**24107**	**24116**	**24125**
±19.99 mA	200 mV	100 mA	**22982**	**24108**	**24117**	**24126**
±199.9 mA	200 mV	1 A	**22983**	**24109**	**24118**	**24127**

Simpson Model 2850—120/240 VAC input and .55" gas discharge display. Complete with panel mtg. clips, edge connector and manual. Net Each **$188.25**

Simpson Model 2851—5 VDC input and .55" gas discharge display. Complete with panel mtg. clips, edge connector and manuals. Net Each **$188.25**

Simpson Model 2852—120/240 VAC input and .43" LED display. Complete with panel mtg. clips, edge connector and manual. Net Each **$188.25**

Simpson Model 2853—5 VDC input and .43" LED display. Complete with panel mtg. clips, edge connector and manual. Net Each **$188.25**

Simpson No. 22992—Adapter for IEC/DIN cutouts. Net Each **$4.75**

Simpson Model 22993—Adapter for domestic 1.682" × 3.920" cutouts. Net Each **$4.75**

Simpson Model 22991—Optional "U" type mtg. bracket. Net Each **$4.75**

Simpson No. 22990—Extra edge connector. Net Each **$5.50**

DC VOLTAGE METERS

Range	Max. Indi-cation	Input Resis.	Overload Protection	Simpson No.	
				Model 2865	Model 2866
200 mV	±199.9 mV	100 meg	350 V	**24500**	**24600**
2 V	±1.999 V	100 meg	350 V	**24501**	**24601**
20 V	±19.99 V	10 meg	350 V	**24502**	**24602**
200 V	±199.9 V	10 meg	350 V	**24503**	**24603**

DC CURRENT METERS

Range	Max. Indi-cation	Max. Input Current	Simpson No.	
			Model 2865	Model 2866
20 µA	±19 99 µA	20 mA	**20504**	**24604**
200 µA	±199 0 µA	20 mA	**24505**	**24605**
2 mA	±1.999 mA	20 mA	**24506**	**24606**
20 mA	±19.99 mA	100 mA	**24507**	**24607**
200 mA	±199.9 mA	1 A	**24508**	**24608**

Simpson Model 2865—120/240 VAC input. Complete with panel mtg. clips, edge connector and manual. Net Each **$114.75**

Simpson Model 2866—5 VDC input. Complete with panel mtg. clips, edge connector and manual. Net Each **$101.25**

Simpson Model 22992—Adapter for IEC DIN cutouts. Net Each **$4.75**

Simpson Model 22993—Adapter for domestic 1.682" × 3.920" cutouts. Net Each **$4.75**

Simpson Model 22991—Optional "U" type mtg. bracket. Net Each **$4.75**

Simpson Wide-Vue Panel Meters

INSTRUMENTS THAT STAY ACCURATE

DC VOLTMETERS

Range	Approx. Resis., Ohms▲	1½″ Model 1212		2½″ Model 1227		3½″ Model 1327		4½″ Model 1329	
		Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each
0–5	1000 Ohms per volt	09540	$39.30	09550	$42.00	09720	$43.20	09870	$46.95
0–8		....	....	....	....	09730	43.20	09880	46.95
0–10		09541	39.30	09560	42.00	09740	43.20	09890	46.95
0–15		09542	39.30	09570	42.00	09750	43.20	09900	46.95
0–25		09543	39.30	09580	42.00	09760	43.20	09910	46.95
0–30		09544	39.30	09590	42.00	09770	43.20	09920	46.95
0–50		09545	39.30	09600	42.00	09780	43.20	09930	46.95
0–100		09546	39.30	09610	42.00	09790	43.20	09940	46.95
0–150		09547	39.30	09620	42.00	09800	43.20	09950	46.95
0–200		....	....	09622	42.00	09810	43.20	09960	46.95
0–250		....	....	09623	42.00	09820	43.20	09970	46.95
0–300		....	....	09630	42.00	09830	43.20	09980	46.95
0–300	2000 Ohms per volt	09548	39.30	....	....	....	....	....	....
0–500		09549*	48.60	09640	43.20	09840	45.45	09990	48.90
0–750		....	....	09650*	52.20	09850	45.45	10000	48.90
0–1000		....	....	09660*	54.00	09860*	55.35	10010*	59.25

*External multiplier, Model 183, furnished; others self-contained.

DC MILLIVOLTMETERS

Range	Approx. Resis., Ohms▲	1½″ Model 1212 Cat. No.	Net Each	2½″ Model 1227 Cat. No.	Net Each	3½″ Model 1327 Cat. No.	Net Each	4½″ Model 1329 Cat. No.	Net Each
0–50	10	07005	$39.30	07010	$40.05	07020	$42.00	07030	$45.15
50–0–50	20	....	....	....	....	07021	42.00	07031	45.15

DC MILLIAMMETERS

Range	Approx. Resis., Ohms▲	1½″ Model 1212 Cat. No.	Net Each	2½″ Model 1227 Cat. No.	Net Each	3½″ Model 1327 Cat. No.	Net Each	4½″ Model 1329 Cat. No.	Net Each
0–1	43	06163	$37.35	06175	$39.60	06310	$40.35	06470	$43.20
0–3	2	....	....	06180	39.60	06320	40.35	06480	43.20
0–5	2 (20)	06164	37.35	06190	39.60	06330	40.35	06490	43.20
0–10	10 (2.2)	06165	37.35	06200	39.60	06340	40.35	06495	43.20
0–15	6.6 (2.2)	06166	37.35	06210	39.60	06350	40.35	06502	43.20
0–20	5	....	....	06215	39.60	06360	40.35	06524	43.20
0–25	4 (6)	06167	39.30	06220	40.05	06370	42.00	06530	45.45
0–50	2 (3)	06168	39.30	06230	40.05	06380	42.00	06540	45.45
0–100	1 (1.5)	06169	39.30	06240	40.05	06390	42.00	06550	45.45
0–150	.66 (1)	06170	39.30	06250	40.05	06400	42.00	06560	45.45
0–200	.5 (.75)	06171	39.30	06260	40.05	06410	42.00	06570	45.45
0–250	.4 (.6)	06172	39.30	06270	40.05	06420	42.00	06580	45.45
0–300	.33 (.5)	06173	39.30	06280	40.05	06430	42.00	06590	45.45
0–500	.2 (.3)	06174	39.30	06290	40.05	06440	42.00	06600	45.45
0–750	.13	....	....	....	....	06450	42.00	06610	45.45
0–1000	.05	....	....	06292	40.05	06460	42.00	06620	45.45

DC AMMETERS

Range	Approx. Resis., Ohms▲	1½″ Model 1212 Cat. No.	Net Each	2½″ Model 1227 Cat. No.	Net Each	3½″ Model 1327 Cat. No.	Net Each	4½″ Model 1329 Cat. No.	Net Each
0–1	.05	02431	$39.30	02440	$40.05	02640	$42.00	02820	$45.45
0–1.5	.033	....	....	02450	40.05	02650	42.00	02830	45.45
0–2	.025	02432	39.30	02460	40.05	02660	42.00	02840	45.45
0–3	.017	02433	39.30	02470	40.05	02670	42.00	02850	45.45
0–5	.01	02434	39.30	02480	40.05	02680	42.00	02860	45.45
0–10	.005	02435	39.30	02490	40.05	02690	42.00	02870	45.45
0–15	.003	02436†	39.30	02500	40.05	02700	42.00	02880	45.45
0–25	.002	02437†	39.30	02510	40.05	02710	42.00	02890	45.45
0–30	.0017	....	....	02520	40.05	02720	42.00	02900	45.45
0–50	.001	02438†	39.30	02530	40.05	02730	42.00	02910	45.45
0–100	10	....	....	02540†	40.05	02740†	42.00	02920†	45.45
0–150	10	....	....	02550†	40.05	02750†	42.00	02930†	45.45
0–200	10	....	....	02552†	40.05	02760†	42.00	02940†	45.45
0–300	10	....	....	02554†	40.05	02770†	42.00	02950†	45.45
0–500	10	....	....	....	....	02780†	42.00	02960†	45.45
10–0–15	.0033	....	....	....	....	02790	43.95	....	....
30–30–30	.0017	....	....	....	....	02800	43.95	....	....
50–0–50	.001	....	....	....	....	02810	43.95	....	....

†50 mV movement requiring external shunt, not supplied; others self-contained.

DC MICROAMMETERS

Range	Approx. Resis., Ohms▲	1½″ Model 1212 Cat. No.	Net Each	2½″ Model 1227 Cat. No.	Net Each	3½″ Model 1327 Cat. No.	Net Each	4½″ Model 1329 Cat. No.	Net Each
0–50	1800 (5500)	04294	$48.90	04310	$50.25	04380	$51.30	04480	$55.05
0–100	1800	04295	43.65	04320	45.45	04390	46.95	04490	52.20
0–200	1100	04296	39.90	04330	41.40	04400	43.20	04500	46.95
0–500	90 (190)	04297	39.30	04340	40.35	04410	42.45	04510	46.20
25–0–25	1800 (5500)	04298	49.35	....	....	04420	51.75	04520	55.35
50–0–50	1800	04302	43.95	04350	46.20	04430	46.95	04530	52.50
100–0–100	1100	04300	40.05	04351	42.00	04440	43.65	04540	47.70
500–0–500	43	04301	38.10	04352	39.90	04450	41.40	04550	43.65

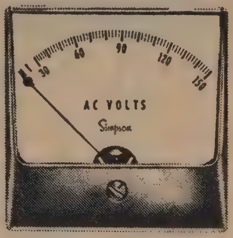
▲Resistances of Model 1212 shown in parenthesis.

AC VOLTMETERS—IRON-VANE TYPE

Range	Approx. Imped. Ohms	1½″ Model		2½″ Model 1257		3½″ Model 1357		4½″ Model 1358	
		Not Available		Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each
0–5	33	....	....	....	....	10160	$39.90	10260	$44.40
0–10	133	....	....	09670	$38.10	10170	39.90	10270	44.40
0–15	300	....	....	09675	38.10	10180	39.90	10280	44.40
0–25	833	....	....	09680	38.10	10190	39.90	10290	44.40
0–50	3,333	....	....	09690	38.10	10200	39.90	10300	44.40
0–100	16,666	....	....	09695	39.30	10210	41.40	10310	44.40
0–150	25,000	....	....	09700	39.90	10220	42.45	10320	45.45
0–250	41,166	....	....	09705	39.90	10230	42.45	10330	45.45
0–300	50,000	....	....	09710	39.90	10240	42.45	10340	45.45
0–500	83,333	....	....	09715*	50.25	10250*	53.85	10350*	57.30

*External multiplier, Model 183, furnished; others self-contained.

Modern styling with durable, open face plastic cover for wide-angle readability and protection of meter face. DC meters have self-shielded meter movement (calibration not affected by stray magnetic fields or magnetic mounting). AC meters have iron-vane type movement. AC Milliammeters and Ammeters are calibrated for 25–800 Hz; Voltmeters are calibrated for use on 25–125 Hz; Wattmeters calibrated for either magnetic or non-magnetic panels and frequency range of 25–125 Hz. Other calibrations at frequencies up to 800 Hz, available on request.



SPECIFICATIONS

Size	Model	Accuracy Full Scale	Scale Length
1½″	1212, T 1214	±2% ±3%*	1.5″
2½″	1227, T 1247 1257	±2% ±3% ±2%	2.30″
3½″	1327, T 1337 1347 1357	±2% ±2% ±3%* ±2%	3.14″
4½″	1329, T 1339 1349 1359 1379	±2% ±2% ±3%* ±2% ±2%	3.93″
8″	728T	±2%	6.9″

*At 25°C and 60 Hz sine wave.

DIMENSIONS

Size	Mtg. Hole	H. × W.	4 Mtg. Studs on
1½″	1.56″ dia.	1.76″ × 1.76″	1.32″ ctrs. #4–40
2½″	2.22″ dia.	2.47″ × 2.47″	1.88″ ctrs. #4–40
3½″	2.81″ dia.	3.25″ × 3.25″	2.24″ ctrs. #4–40
4½″	2.81″ dia.	4.00″ × 4.68″	3.56″ × 4″ #6–32
8″	3″ dia.	6.5″ × 8″	4.5″ × 6″ #6–32

MOUNTING BEZEL AND ILLUMINATION KIT

FOR "WIDE-VUE" PANEL METERS

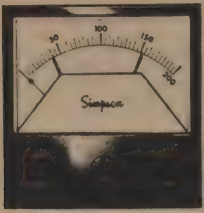
Mounting bezels add modern streamlined appearance to Wide-Vue panel meters. Groove and flange construction of diecast metal with satin black finish. For behind-panel mounting on panels ⅛″ to 3/16″ thick. With brackets, screws and template. Illumination kit is for 3½″ and 4½″ models.

Meter Size	For "Wide Vue" Models	Cat. No.	Net Each
3½″	1327, 1337, 1347, 1357	01253	$5.55
4½″	1329, 1339, 1349, 1359, 1379	01123	5.55
....	Illum. Kit	01165	5.40

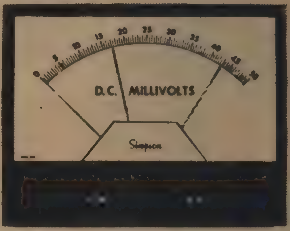
Simpson Controllers

INSTRUMENTS THAT STAY ACCURATE

RUGGED SEAL AMPLIFIED INPUT CONTACTLESS CONTROLLERS

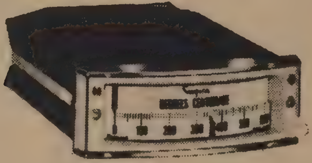


Set points are 100% (single), 95% (dual) adjustable on scale by front panel knobs thru a gear drive; indication, by separate lance pointers, within 1% of actual switching. Sensing is done through a long-life lamp and photoconductors. Solid state switching circuit and DPDT slave relay provided internally for each control point; both slaves open in case of power failure. Slaves will switch to 10 amps resistive per set of contacts at 115 VAC. **Power Required:** 115 VAC, 50–500 Hz. **Size:** 3½" units, 3.25" sq. × 4.55" d. behind panel; 4½" models, 4.68" w. × 4.15" h. × 4.55" d. behind panel; 4" × 6" models, 5.84" w. × 4.62" h. × 4.55" d. behind panel. Rugged high-torque pivot and jewel movement.



	3½" Model 3343AIXA				4½" Model 3344AIXA							
	Single Control Point		Double Control Point		Single Control Point		Double Control Point		Single Control Point		Double Control Point	
Range	Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each	Cat. No.	Net Each
0–5 AAC	21470	$217.80	21633	$269.70	21479	$221.25	21637	$273.45	....	....	....	....
0–10 VAC	21472	202.05	21635	253.80	21481	205.65	21639	257.55	....	....	....	....
0–150 VAC	21473	202.05	21636	253.80	21482	205.65	21640	257.55	....	....	....	....
0–300 VAC	21503	202.05	21641	253.80	21505	205.65	21642	257.55	....	....	....	....
0–100 mVAC	21471	223.50	21634	277.50	21480	228.30	21638	280.05	....	....	....	....

Range	Model 3323AIXA				Model 3324AIXA				Model 3326AIXA			
0–25 µADC	21438	$216.45	21618	$268.50	....	....	....	....	....	....	....	....
0–50 µADC	21418	203.85	21619	255.75	21428	$207.30	21626	$259.35	....	....	....	....
0–100 µADC	21419	197.70	21620	249.90	21429	201.00	21627	252.90	....	....	....	....
0–1 mADC	21420	189.60	21621	241.65	21430	183.75	21628	244.95	21600	$199.05	....	....
0–5 ADC	21422	193.95	21622	248.10	21432	197.25	21629	251.10	....	....	....	....
0–50 mVDC	21437	195.15	21623	246.45	21433	197.70	21630	249.90	....	....	....	....
0–1 VDC	21423	192.00	21624	245.70	21434	195.15	21631	249.90	....	....	....	....
0–50 VDC	21425	192.00	21625	245.70	21436	195.15	21632	248.70	....	....	....	....



CONTACTLESS TEMPERATURE CONTROLLERS

Same dimensions and features as voltage and current ranges listed above, but including high-impedance input amplifier. Thermocouple inputs from 0 to 100 ohms may be used without adjustments. Electrical cold junction compensation and thermocouple break protection are standard.

	4½" Model 3324XA			
	Single Control Point		Double Control Point	
Range	Cat. No.	Net Each	Cat. No.	Net Each
−50 to +275° F	21400	$221.10	21610	$278.10
0 to +300° F	21401	221.10	21611	278.10
0 to +500° F	21402	221.10	21612	278.10
0 to +750° F	21403	221.10	21613	278.10
0 to +1000° F	21404	221.10	21614	278.10
0 to +1500° F	21405	221.10	21615	273.15
0 to +2000° F	21406	221.10	21616	273.15
0 to +2500° F	21407	221.10	21617	273.15

MODELS 3623XA, 3643XA CONTACTLESS CONTROLLERS

Single and double set point models with mode indication lamps; removable set point knobs to prevent tampering; relays are field-replaceable. **Power Ratings:** 4 VA max. single set point, 6 VA max. double set point; life, 1,000,000 operations. **Set Points:** Single, 0–100% of full scale; double, 0–98% low and 2–100% high, can be set within 2° of each other; control switching within 1.0% of set points; dead band less than 0.5% of full scale. Also available as temperature controller or as photocell output meter relay. All units are less output load switch; **select one per set point from listing below.**

Cat. No.	Model	Range	Net Each
19300	3623XA†	0–50 µADC	$186.60
19301*	3623XA†	0–50 µADC	238.20
19302	3623XA†	0–100 µADC	180.00
19303*	3623XA†	0–100 µADC	232.20
19304	3623XA	0–1 mADC	172.20
19305*	3623XA	0–1 mADC	224.40
19306	3623XA	0–50 mVDC	180.45
19307*	3623XA	0–50 mVDC	229.35
19308	3643XA	0–5 AAC	216.15
19309*	3643XA	0–5 AAC	252.60
19310	3643XA	0–10 VAC	185.10
19311*	3643XA	0–10 VAC	236.85
19312	3643XA	0–150 VAC	185.10
19313*	3643XA	0–150 VAC	237.00

*Double set point meters; all others have single set point. †Taut-band type.

OUTPUT LOAD SWITCHES FOR MODELS 3623XA, 3643XA

No. 16898 Relay Assembly Kit—Includes one DPDT relay and connector rated 5 A at 120 VAC resistive. Net Ea. **$14.40**

No. 16899 Triac Switch Module—Switch contacts SPST N.O. rated 4 A at 120 VAC at 25° C. Net Each **$43.05**

MODEL 186 CURRENT TRANSFORMERS FOR USE WITH 10 VOLT AC CONTROLLERS

Convert 0–10 VAC controllers to AC current control unit. Frequency range: 50 Hz to 5kHz. Accuracy, ±2%.

Range	VA	Cat. No.	Net Each	Range	VA	Cat. No.	Net Each
0–50 mA	0.4	01294	$20.55	0–5 A	0.75	01312	$20.55
0–100 mA	0.5	01295	20.55	0–10 A	1.45	01314	20.55
0–200 mA	0.37	01296	20.55	0–15 A	1.05	01315	20.55
0–300 mA	0.48	01303	20.55	0–20 A	1.04	01316	20.55
0–500 mA	0.53	01304	20.55	0–25 A	1.50	01317	20.55
0–750 mA	0.37	01307	17.40	0–30 A	1.10	01318	20.55
0–1 A	0.42	01308	20.55	0–40 A	1.09	01319	20.55
0–2 A	0.54	01309	20.55	0–50 A	1.90	01321	20.55
0–3 A	0.66	01311	20.55				

ANA-LED SOLID STATE PANEL METERS

A conventional analog meter scale is combined with a horizontal line of LED lamps directly below the scale. As the analog value increases from zero, successive LED's light. The indication follows input changes exactly, making it easy to spot trends and fluctuations. There are no moving parts to wear or break. Meters are available as a "bar" display with narrow, lighted segments. An output signal of 0–5 VDC at 1 mA is provided for recording or for driving output switching circuits. Many special designs and ranges are available on special order; consult factory. **Accuracy:** ±2% of full scale. **Linearity:** ±0.1% of full scale. **Signal Input:** DC Current, 1 µA to 50 mA at 50 mV; DC Voltage, 50 mV to 250 V at 50 µA; AC Voltage, 50 mV to 250 V at 50 µA. **Operating Temperature Range:** 0° C to +60° C. **Temperature Coefficient:** ±0.03% of F.S./° C. **Response Time:** DC, 15 msec, max.; AC, less than 1 msec. **Power Required:** +6 and −6 VDC at 200 mA each side. Model 7528: Dual supply, −6 V each, 400 mA, −6 V each. 300 mA, −1 V regulation, 1% no load to full load. **Allowable Ripple:** ±60 mV p-p. **Size:** 7.87" w. × 1.97" h. × less than 1 in. behind panel.

Any Simpson Model 7527 or 7528 Ana-Led Meter—Order by catalog number.
Net Each **$135.45**

Simpson No. 31111 Enclosed Power Supply—For Ana-Led meters.
Net Each **$58.75**

Simpson Model 31110 Open Type Power Supply—For Ana-Led meters.
Net Each **$34.75**

OUTPUT DEVICES FOR ANA-LED METERS

SET-POINT MODULES

When combined with Ana-Led meters, these front or back panel-mount modules provide on/off or limit control. Up to 25 modules can be used with each meter. **Size:** 1.56" h. × 2.15" w. × 3.18" d. without relay. Thru-panel cutout 1.44" h. × 2.18" w. Rear panel mount possible.

Simpson No. 30205 Digital Set-Point Module—With 2 digital thumb switches.
Net Each **$78.50**

Simpson No. 30208 Analog Set-Point Module—With potentiometer.
Net Each **$50.25**

OUTPUT DEVICES

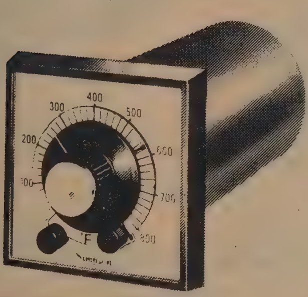
Only one may be used with each meter.

Simpson No. 30210 Relay—DPDT relay with 5 amp contacts and plug-in connector.
Net Each **$14.50**

CATALOG NUMBER

Range	Thru-Panel Mount		Surface Mount
	Model 7527	Model 7528	Model 7527SM
0–50 DCmV	30154	31090	30179
50–0–50 DCmV	30155	31091	30180
0–100 DCmV	30156	31092	30181
0–1 DCV	30162	31093	30187
0–10 DCV	30163	31094	30188
0–100 DCV	30164	31095	30189
0–150 DCV	30165	31096	30190
0–250 DCV	30166	31097	30191
0–1 DCµA	30150	31081	30175
0–10 DCµA	30151	31082	30176
0–50 DCµA	30152	31083	30177
0–100 DCµA	30153	31084	30178
0–1 DCmA	30157	31085	30182
0–5 DCmA	30158	31086	30183
0–10 DCmA	30159	31087	30184
0–20 DCmA	30160	31088	30185
0–50 DCmA	30161	31089	30186
0–50 ACmV	30167	....	30192
50–0–50 ACmV	30168	....	30193
0–100 ACmV	30169	....	30194
0–1 ACV	30170	31098	30195
0–10 ACV	30171	31099	30196
0–100 ACV	30172	31100	30197
0–150 ACV	30173	31101	30198
0–250 ACV	30174	31102	30199

MODEL 5850 SOLID STATE NON-INDICATING CONTROLLERS



The 5850 controllers are panel-mounted, non-indicating units packaged in a sealed, all-steel case for use in adverse environments. Necessary panel space is only 3¼" × 3¼". All solid-state circuitry provides accuracy of ±1% typical. Models are available with single or double set-points. Double set-points overlap and are adjustable over 100% of the scale. Set-point locks are standard. An output is provided for a 500–0–500 µA deviation meter. Standard control mode is on/off with ½% full scale differential. Time proportioning is available. Cold junction compensation and thermocouple break protection are standard on temp. units.

THERMOCOUPLES

Cat. No.	Type	Lgth.	Description	Net Each
31071	I/C	120"	Duplex, term. lugs	$26.10
31072	C/A	120"	Duplex, term, lugs	34.50
31073	I/C	120"	0.187" × 5", SS, lugs	27.75
31074	C/A	120"	0.187" × 5", SS, lugs	39.75
31075	I/C	96"	Bayonet type, adjustable	40.95

THERMISTORS

Cat. No.	Description	Net Each
31077	Free air probe, perforated guard	$27.00
31078	General purpose probe	23.25
31079	Surface probe, flat mounting	23.25

ACCESSORIES

21237	0.187" comp. fitting, use with No. 31073 or 31074	$12.60
31076	Bayonet adapter, ⅛-27 NPT × ⅞", use with No. 31075	5.85
31070	Transformer, 0–150/300/600 VAC primary, 150 VAC secondary	26.10

TEMPERATURE

Range	Sensor	Ext. Resis., Ohms	Single Set-Point		Double Set-Point	
			Cat. No.	Net Each	Cat. No.	Net Each
−25 to +50° F	Therm.	....	31000	$147.45	....	....
0 to +150° F	Therm.	....	31001#	147.45	31055#	$252.90
+100 to +250° F	Therm.	....	31002	147.45	31056	252.90
0 to +400° F	I/C(J)	0–100	31003#	147.45	31050	252.90
0 to +800° F	I/C(J)	0–100	31004#	147.45	31051#	252.90
0 to +1200° F	I/C(J)	0–100	31005	147.45	31052	252.90
0 to +1600° F	C/A(K)	0–100	31006	147.45	31053	252.90
0 to +2200° F	C/A(K)	0–100	31007	147.45	31054#	252.90

#Stock item.

CURRENT (50 mV DROP)

Range	Single Set-Point		Double Set-Point	
	Cat. No.	Net Each	Cat. No.	Net Each
0–1 µADC	31020	$147.45	....	....
0–10 µADC	31021	147.45	....	....
0–50 µADC	31022	147.45	....	....
0–100 µADC	31023	147.45	31057	$252.90
0–1 mADC	31024#	147.45	31058#	252.90
0–5 mADC	31025	147.45	....	....
0–20 mADC	31026	147.45	....	....
0–50 mADC	31027#	147.45	....	....
4–20 mADC*	31028#	147.45	31059#	252.90
5 AAC†	31029#	147.45	....	....

*Supplied with 0–100% scale. †Supplied with 0–150% scale. #Stock item.

VOLTAGE

Range	Input Resis., Ohms	Single Set-Point		Double Set-Point	
		Cat. No.	Net Each	Cat. No.	Net Each
0–10 mVDC	200	31035	$147.45	....	....
0–50 mVDC	1K	31036#	147.45	31060#	$252.90
0–100 mVDC	2K	31037	147.45	....	....
0–1 VDC	20K	31038	147.45	....	....
0–10 VDC	200K	31039	147.45	....	....
0–100 VDC	2M	31040	147.45	....	....
1–5 VDC*	100K	31041#	147.45	....	....
0–10 VAC	85K†	31042#	147.45	....	....
0–150 VAC	1.3M†	31008	147.45	31061#	252.90

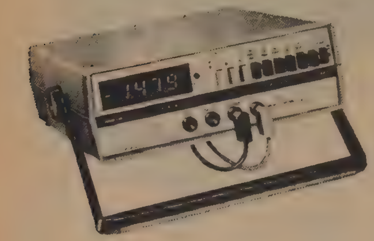
*Supplied with 0–100% scale. †Minimum. #Stock item.

DUAL RANGE

Ranges	Double Set-Point	
	Cat. No.	Net Each
0–5 AAC, 0–150 VAC, 0–150% & 0–300 VAC scale	31062#	$177.90

#Stock Item.

MODEL 465-3 AUTORANGING DIGITAL MULTIMETER



Range HOLD for repeated tests
3½ digit, 0.43" LED readout
MOS/LSI circuitry
Automatic range selection
Pushbutton function selection
Complete with leads and manual

DC Volts: 0 to 0.2, 2, 20, 200, 1000 volts.

AC Volts: 0 to 0.2, 2, 20, 200, 600 volts.

DC Current: 0 to 200 µA; 0 to 2, 20, 200 mA; 0 to 2, 10 amps.

AC Current: 0 to 200 µA; 0 to 2, 20, 200 mA; 0 to 2, 10 amps.

Resistance (High Power): 1Ω to 2K, 20K, 200K, 20 megohms at 2.5 volts open circuit.

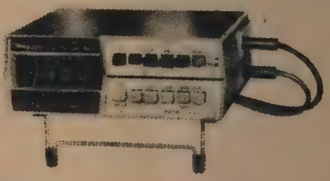
Resistance (Low Power): 1Ω to 2K, 20K, 200K, 2000K at 0.35 volts open circuit.

Accuracy: ±0.1% + 1 digit on DC volts; ±0.5% + 2 digits on AC volts; ±0.4% + 2 digits on resistance; ±0.25% + 1 digit on DC current; ±1% + 2 digits on AC current.

Simpson Model 465A-3 Autoranging Digital Multimeter—For AC operation only. Complete with test leads, line cord and operator's manual. Net Each	**$423.00**
Simpson Model 465D-3 Autoranging Digital Multimeter—For AC and battery operation. Complete with test leads, operator's manual and line cord. Less batteries. Net Each	**$476.00**

MODELS 461-2 AND 462 AUTORANGING DIGITAL MULTIMETERS

Compact, portable.
3½ digit, 0.3" LED display.
Automatic polarity and zeroing.
10 megohm input impedance.
Resolves 100 µV, 0.1 ohm, 100 nA.
Complete with nickel-cadmium batteries, battery charger/adapter, test leads and manual.
120 and 230 VAC versions available (specify when ordering).
26 ranges.
LSI circuitry.

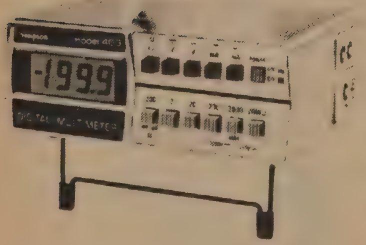


SPECIFICATIONS

DC Volts: 0-200 mV. 0-2, 20, 200, 1000 volts.
Accuracy: Model 461, ±0.5% of reading + 1 digit; Model 462, ±0.25% + 1 digit.
AC Volts: 0-200 mV, 0-2, 20, 200, 600 volts.
Accuracy: Model 461, ±1% of reading + 2 digits; Model 462, ±0.75% + 2 digits at 50-1000 Hz; ±5% + 2 digits at 1-5 kHz.
DC Current: Model 461, 0-200 µA, 0-2, 20, 200 mA, 0-2 amps; Model 462, 0-2, 20, 200, 2000 mA.
Accuracy: Model 461, ±2% of reading + 2 digits for 0-2 amp range, ±1.5% + 2 digits for all others. Model 462, ±1.5% of reading ± 1 digit for 0-2000 mA range, ±1% + 1 digit for all others.
AC Current: Model 461, 0-200 µA, 0-2, 20, 200 mA, 0-2 amps; Model 462, 0-2, 20, 200, 2000 mA.
Accuracy: Model 461, ±2% of reading + 2 digits for 0-2 amp range, ±1.5% + 2 digits for all others; Model 462, ±2% of reading + 5 digits for 0-2000 mA range, ±1.5% + 5 digits for all others.
Resistance: Model 461, 0-200, 2K, 20K, 200K, 2000K, 20 megohms; Model 462, 0-2K, 20K, 200K, 2000K, 20 megohms.
Accuracy: ±1% of reading + 1 digit for 0-20 megohm range, ±0.5% + 1 digit for all others
Size: 2" h. × 5.6" w. × 4.6" d.
Weight: Approximately 1 lb., 8 oz. with batteries.

Simpson Model 461-2 Digital Multimeter—Catalog No. 12528. For 120 VAC operation. Net Each	**$204.00**
Simpson Model 461-2 Digital Multimeter—Catalog No. 12529. For 230 VAC operation. Net Each	**$204.00**
Simpson Model 462 Autoranging Multimeter—Catalog No. 12547. For 120 VAC operation. Net Each	**$256.00**
Simpson Model 462 Autoranging Multimeter—Catalog No. 12548. For 230 VAC operation. Net Each	**$256.00**
Simpson No. 00749—40 kV H.V. Probe. Net Each	**$51.75**
Simpson No. 00748—RF Probe. Net Each	**$41.75**
Simpson No. 00814—Carrying Case. Net Each	**$28.25**
Simpson No. 00044—Replacement Batteries. Net Each	**$21.75**

MODEL 463 DIGITAL MULTIMETER



Compact, portable.
3½ digit, 0.5" LCD readout
Automatic polarity and zeroing.
10 megohm input impedance.
0.2% accuracy on DC Voltage ranges.
Complete with battery, test leads, alligator clips and manual.
Pushbutton selection of all functions and ranges.
26 ranges.
LSI circuitry.
Wide, 20 kHz AC Voltage response.
Battery operated.
Low battery indication.

SPECIFICATIONS

DC Volts: 0-200 mV; 0-2, 20, 200, 1000 V.
Accuracy (+20°C to +30°C): ±0.2% of reading + 1 digit.
AC Volts: 0-200 mV; 0-2, 20, 200, 750 V.
Accuracy (+20°C to +30°C): ±1.5% of reading +3 digits from 20 to 40 Hz; ±0.5% of reading +2 digits from 40 to 1000 Hz; ±1.5% of reading +3 digits from 1 to 10 kHz; ±5% of reading +5 digits from 10 to 20 kHz.
DC Current: 0-200 µA; 0-2, 20, 200, 2000 mA.
Accuracy (+20°C to +30°C): ±0.5% of reading +2 digits, except ±1% of reading +2 digits on 2000 mA range.
AC Current: 0-200 µA; 0-2, 20, 200, 2000 mA.
Accuracy (+20°C to +30°C): ±1.5% of reading +3 digits from 40 to 1000 Hz; ±5% of reading +5 digits from 1 to 5 kHz.
Resistance: 0-200, 2K, 20K, 200K, 2000K; 0-2 megohms.
Accuracy (+20°C to +30°C): ±0.25% of reading +2 digits, except ±0.75% of reading +2 digits on 20 megohm range.

Simpson Model 463 Digital Multimeter—Cat. No. 12649. Net Each	**$210.00**
Simpson No. 00748 RF Probe—Net Each	**$41.75**
Simpson No. 00749 40 kV High Voltage Probe—Net Each	**$51.75**
Simpson No. 00814 Carrying Case—Net Each	**$28.25**

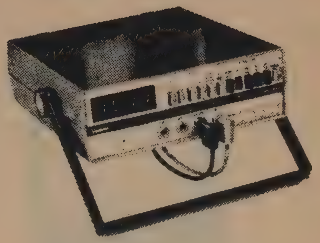
ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

Simpson Portable Digital Multimeters

INSTRUMENTS THAT STAY ACCURATE

MODEL 464-3 DIGITAL MULTIMETER

3½ digit, 0.43" LED readout.
0.1% Accuracy on DC Voltage ranges.
Complete with line cord, leads and manual.
Pushbutton selection of all functions and ranges.
28 ranges.
Battery or AC line operation.
LSI circuitry.



SPECIFICATIONS

DC Volts: 0 to 0.2, 2, 20, 200, 1000 volts.

AC Volts: 0 to .2, 2, 20, 200, 600 volts.

DC Current: 0 to 200 µA; 0 to 2, 20, 200 mA; 0 to 2, 10 amps.

AC Current: 0 to 200 µA; 0 to 2, 20, 200 mA; 0 to 2, 10 amps.

Resistance: 0 to 200, 2K, 20K, 200K, 2000K; 0 to 20 megohms.

Accuracy (+15°C to +35°C): See table below.

Simpson Model 464A-3 Digital Multimeter—For AC line operation only. Complete with test leads, line cord and manual. Net Each **$304.00**

Simpson Model 464D-3 Digital Multimeter—For AC line and battery operation. Complete with test leads, line cord and manual. Net Each **$355.00**

360-2 DIGITAL MULTIMETER

3½ digit, 0.43" LED readout.
29 ranges including "low power" ohms.
Analog indicator for nulls and peaks
Analog output provision for recording.
Complete with line cord, leads and manual.
Solid-state, IC design.

SPECIFICATIONS

DC Volts: 0 to 0.2, 2, 20, 200, 1000 volts.

AC Volts: 0 to 0.2, 2, 20, 200, 600 volts.

DC Current: 0 to 20, 200 µAmps; 0 to 2, 20, 200 mAmps; 0 to 2, 10 Amps.

AC Current: 0 to 200 µAmps; 0 to 2, 20, 200 mAmps; 0 to 2, 10 Amps.

Resistance: 0 to 200, 2K ohms at low power; 0 to 20K, 200K, 2 megohms, 20 megohms.

Accuracy: (+15°C to +35°C): See table below.

Simpson 360-2 Digital Multimeter—For 110 VAC operation. Net Each **$375.00**

Simpson 360-2 Digital Multimeter—For 220 VAC operation. Net Each **$375.00**

Simpson No. 00045—Replacement Batteries. Net Each **$47.25**

460-5 DIGITAL MULTIMETER

3½ digit, 0.43" LED readout.
AC line or battery operation.
Analog indicator with linear and dBm markings.
Digital LSI circuitry.
Complete with leads and manual.
26 ranges.

SPECIFICATIONS

DC Volts: 0 to 0.2, 2, 20, 200, 1000 volts.

AC Volts: 0 to 0.2, 2, 20, 200, 600 volts.

DC Current: 0 to 200 µAmps; 0 to 2, 20, 200 mAmps; 0 to 2 Amps.

AC Current: 0 to 200 µAmps; 0 to 2, 20, 200 mAmps; 0 to 2 Amps.

Resistance: (Normal and low-power) 0 to 200, 2K, 20K, 200K, 2 megohms, 20 megohms.

Accuracy: (+15°C to +35°C): See table below.

Simpson 460A-5 Digital Multimeter—For VAC operation only. Net Each **$397.00**

Simpson 460D-5 Digital Multimeter—For VAC and battery operation. Net Each **$451.00**

ACCURACIES

MODEL 464-3 DMM

DC Voltage: ±(0.1% of reading + 1 digit).

AC Voltage: ±(0.5% of reading + 2 digits) from 40 Hz to 1 kHz; ±(1.0% of reading + 2 digits) from 1 kHz to 10 kHz.

DC Current: ±(0.5% of reading + 1 digit), except ±(1.0% of reading + 1 digit) on 2 A and 10 A ranges.

AC Current: ±(1.5% of reading + 2 digits), except ±(2.0% of reading + 2 digits) on 2 A and 10 A ranges.

Resistance: ±(0.5% of reading + 1 digit), except ±(1.0% of reading + 1 digit) on 20 megohm ranges.

360-2 DMM

DC Voltage: ±(0.25% + 1 digit).

AC Voltage: ±(0.5% + 1 digit) from 40 Hz to 1 kHz; ±(1.0% + 1 digit) from 1 kHz to 10 kHz; ±(2.0% of reading + 2 digits) from 10 kHz to 20 kHz; except ±(5% of reading + 2 digits) on 200 V range.

DC Current: ±(0.5% + 1 digit), except ±(1.0% + 1 digit) on 2 A and 10 A ranges.

AC Current: ±(1.0% + 1 digit) from 40 Hz to 10 kHz, except ± (2% + 2 digits) on 2 A and 10 A ranges.

Resistance: ±(0.5% + 1 digit), except ±(1.0% + 2 digits) on 2 and 20 megohm ranges.

460-5 DMM

DC Voltage: ±(0.1% + 1 digit).

AC Voltage: ±(0.5% + 2 digits) from 40 Hz to 10 kHz, except 600 V range which is 40 Hz to 400 Hz; ±(1.0% + 2 digits) from 10 kHz to 20 kHz, except 600 V range which is 400 Hz to 20 kHz.

DC Current: ±(0.25% + 1 digit), except ±(1.0% + 1 digit) on 2 A and 10 A ranges.

AC Current: ±(0.7% + 2 digits), except ±(1.5% + 2 digits) on 2 A and 10 A ranges.

Resistance: ±(0.25% + 1 digit), except ±(0.5% + 2 digits) on 2 and 10 megohm ranges.

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

Simpson Portable VOM's

INSTRUMENTS THAT STAY ACCURATE

260-6XL VOM

Shock and drop resistant construction.
33 ranges including "low power" ohms.
Complete with batteries, test leads and manual.

Low-power ohms open-circuit voltage. 100 mV maximum.
Large viewing area.

SPECIFICATIONS

DC Volts: 0 to .25, 1, 2.5, 10, 25, 100, 250, 500, 1000 volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to 2.5, 10, 25, 100, 250, 500, 1000 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 50 µA; 0 to .5, 5, 50, 500 mA; 0 to 5 amps.
AC Current: Direct dial scale reading to 250A when Amp-Clamp adapter is used.
dB: −20 to +10, −9 to −21, −1 to −29, +11 to +41, +19 to +49.
Output: 0.1 µF capacitor in series with ACV ranges thru 250 volts.
Resistance: Low-power: R × 1 (1K ohms) and R × 10 (10K ohms);
Conventional: R × 1 (1K ohms), R × 100 (100K ohms);
R × 1K (1 megohm), R × 10K (10 megohms).
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%; Resistance ±2.5° of arc.

Simpson 260-6XL—Catalog No. 12205. With standard scale. Net Each	**$139.00**
Simpson 260-6XLM—Catalog No. 12206. With mirror scale. Net Each	**$147.00**
Simpson 260-6XLP—Catalog No. 12207. Same as 260-6XL but has protective overload circuit with reset button that pops out when overload is present. Net Ea	**$190.00**
Simpson 260-6XLPM—Catalog No. 12211. With mirror scale. Net Each	**198.00**

260-7 VOM

Same as the Model 260-6 plus new insulated panel connectors, an Off/Transit position on the function switch, doubly fused protection network and functionally engineered test leads.

Simpson Model 260-7—Catalog No. 12268. Net Each	**$119.00**
Simpson Model 260-7M—Catalog No. 12269. With mirror scale. Net Each	**$127.00**
Simpson Model 260-7RT—Catalog No. 12272. In roll-top protective case. Net Each	**$139.00**
Simpson Model 260-7MRT—Catalog No. 12273. With mirror scale and roll-top case. Net Each	**$147.00**
Simpson Model 260-7P—Catalog No. 12274. With relay overload protection. Net Each	**$170.00**
Simpson Model 260-7PM—Catalog No. 12277. With relay protection and mirror scale. Net Each	**$178.00**
Simpson Model 260-7PRT—Catalog No. 12279. With relay protection and roll-top case. Net Each	**$190.00**

MODEL 250 VOM

Fused input circuits.
Varistor protected movement.
Complete with test leads, batteries and manual.

For solid-state servicing.
Taut band movement.
50mV drop on DC current.

SPECIFICATIONS

DC Volts: p to .05, .25, 2.5, 10, 50, 250, 500, 1000 volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to .25, 10, 50, 250, 500, 1000 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 50 µA; 0 to 1, 10, 100, 500 mA; 0 to 10 amps.
AC Current: Direct dial scale reading to 250A when Amp-Clamp adapter is used.
dB: −20 to +10, −8 to +22, +6 to +36, +20 to +50.
Resistance: R × 1 (2K ohms); R × 100 (200K ohms), R × 10K (20 megohms).
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%; Resistance ±2° of arc.

Simpson Model 250—Catalog No. 12158. Net Each	**$131.00**

MODEL 255 VOM

Designed for gas and electrical appliance servicing.
Complete with test leads, batteries, thermocouple lead and manual.

Measures temperature from +100°F to +1050°F.
22 ranges including temperature.

SPECIFICATIONS

DC Volts: 0 to .05, .25, 1, 1.5, 10, 50, 250, 1000 volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to 2.5, 10, 50, 250, 1000 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 50 µA; 0 to 1, 10, 100, 500 mA.
AC Current: Direct dial scale reading to 250A when Amp-Clamp adapter is used.
Resistance: R × 1 (2K ohms), R × 100 (200 ohms), R × 10K (20 megohms).
Temperature: +100°F to 1050°F.
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%; Resistance ±2° of arc.

Simpson Model 255—Catalog No. 12155. Complete test leads, 5' thermocouple lead and instruction manual. Net Each	**$152.00**

MODEL 265 INDUSTRIAL VOM

AC and DC currents to 12 amperes.
Taut band movement for high resolution.
Complete with test leads, batteries and operator's manual.

Simultaneous AC voltage and current measurements.

SPECIFICATIONS

DC Volts: 0 to 0.3, 3, 12, 60, 300, 600 volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to 3, 12, 60, 300, 600 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 60 µA; 0 to 1.2, 12, 120, 600 mA; 0 to 1.2, 12 amps.
AC Current: 0 to 120 mA, 0 to 1.2, 12 amps.
Resistance: R × 1, R × 100, R × 1K, R × 10K.
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%.

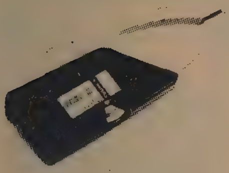
Simpson Model 265 Industrial VOM—Catalog No. 12184. Net Each	**$215.00**

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

MODEL 150-2 AMP-CLAMP ADAPTER

Clamp-on type AC ammeter adapter allows measurement to be made without breaking the circuit being tested. Adapter plugs into 160, 260, 260XL, 261, 270, 250 or 255 VOM and can be used with any VOM having a 0-2.5, 0-3 or 0-5 VAC scale. Set VOM to the 2.5, 3, or 5 VAC scale. AC current ratings are: on 2.5 VAC scale, 0 to 5, 10, 25, 50, 100, and 250 amps; on 3 VAC scale, 0 to 6, 12, 30, 60, 120 and 300 amps; on 5 VAC scale, 10, 20, 50, 100, 200, and 500 amps. Accuracy, ±3% F.S.

Simpson Model 150-2 Amp-Clamp Adapter—Catalog No. 00545 for Series 6; 00545 for Series 7. Complete with test lead. Net Each **$51.00**



MODELS 153-2 AND 154-2 AMP-CLAMP ADAPTERS

Clamp-on type AC ammeter adapter allows measurement to be made without breaking the circuit being tested. Adapter plugs into digital multimeter. Readout is on 0.2, 2 or 20 VAC scale. Ranges are: on 0.2 VAC scale, 0-2 A; 2 VAC scale, 20 A; 20 VAC scale, 200 A. **Accuracy:** ±3% on 20 and 200 A ranges; ±4% on 2 A range.

Simpson Model 153-2 Amp-Clamp Adapter—Catalog No. 12494. For Model 461 DMM. Net Each **$51.00**

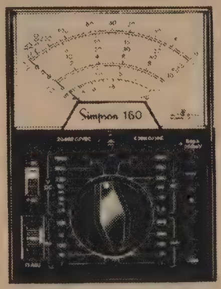
Simpson Model 154-2 Amp-Clamp Adapter—Catalog No. 12495. For Models 360-2, 460-3 and 464 DVMs. Net Each **$51.00**

Simpson No. 00533—Extra Test Lead. Net Each **$5.00**

Simpson No. 00548—Carrying Case. Net Each **$16.50**

160 HANDI-VOM

Miniature VOM is shock and drop resistant. Has self-shielding, taut band movement, varistor protected from overloads, accuracy and sensitivity of full-size VOM.



SPECIFICATIONS

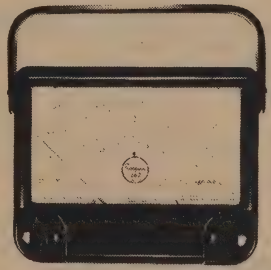
DC Volts: 0 to .25, 1, 2.5, 10, 50, 250, 500, 1000 volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to 2.5, 10, 50, 250, 500, 1000 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 50 µA; 0 to 1, 10, 100, 250, 500 mA.
dB: −20 to +10, −8 to +22, +6 to +36, +20 to +50.
Resistance: Rx1, Rx10, Rx100, Rx1K, Rx10K.
Accuracy: DC ±2%; AC ±3%.
Size: 4⁹⁄₁₆″ h. × 3⁵⁄₁₆″ w. × 1¾″ d.
Weight: 12 ozs.

Simpson 160 Handi-VOM—Catalog No. 12271. Complete with alligator clip leads, batteries and operator's manual. Net Each **$100.00**

Simpson No. 02056—Amp-Clamp Adapter Pins for 160 VOM. Net Each **$4.00**

MODEL 262-3 VOM

Compact design covers 34 ranges on easy-to-read 7″ scale with repetitive accuracy. Diode overload protection.



SPECIFICATIONS

DC Volts: 0 to 1.6, 8, 40, 160, 400, 800, 1600, 4000 (with probe) volts at 20,000 ohms per volt sensitivity.
AC Volts: 0 to 3, 6, 40, 160, 400, 800 volts at 5000 ohms per volt sensitivity.
DC Current: 0 to 80, 160 µA; 0 to 1.6, 16, 160 mA; 0 to 1.6, 8 amps.
dB: −12 to +45.5 in four ranges.
Output: 0.1 µF capacitor in series with AC voltage ranges thru 160 volts.
Resistance: Rx1 (500 ohms), Rx10 (5K ohms), Rx100 (50K ohms), Rx1K (500K ohms), Rx10K (5 megohms), Rx100K (50 megohms).
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%; Resistance ±2.5° of arc.
Size: 7¼″ w. × 6″ h. × 3″ d.
Weight: 4 lbs.

Simpson Model 262-3—Catalog No. 12182. Complete with test leads, 4000 VDC probe extension, batteries and manual. Net Each **$187.00**

MODEL 269-3 VOM

Self-shielded taut band movement gives better repeatability of readings. Input circuits protected by fuse; movement protected by varistor. Meter has mirror scale and knife-edge pointer for more accurate readings; ±1.5% DC and ±2.5% AC accuracy.

SPECIFICATIONS

DC Volts: 0 to 0.8, 1.6, 8, 40, 160, 400, 800, 1600, 4000 at 100,000 ohms/volt sensitivity.
AC Volts: 0 to 3, 8, 40, 160, 400, 800 at 5000 ohms/volt sensitivity.
DC Current: 0 to 16, 160 µA; 0 to 1.6, 16, 160 mA; 0 to 1.6, 8 amps.
dB: −12 to +45.5 in four ranges.
Output: External 0.1 µF capacitor required when DC is present.
Resistance: Rx1 (2K ohms), Rx10 (20K ohms), Rx100 (200K ohms), Rx1K (2 megohms), Rx10K (20 megohms), Rx100K (200 megohms).
Accuracy: All ranges ±1.5%; Resistance ±2° of arc.
Size: 7¼″ w. × 6″ h. × 3″ d.
Weight: 4 lbs.

Simpson Model 269-3—Catalog No. 12192. Complete with test leads, 4 KV probe extension, and manual. Net Each **$218.00**

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

Simpson Test Equipment

INSTRUMENTS THAT STAY ACCURATE

260-7-VOM

Fast accurate measurements on 27 popular ranges.
External access battery and fuse compartment.
Complete with batteries, test leads and manual.
Taut band, varistor protected movement.

SPECIFICATIONS

DC Volts: 0 to .25, 1, 2.5, 10, 50, 250, 500, 1000 at 20,000 ohms per volt sensitivity.

AC Volts: 0 to 2.5, 10, 50, 250, 500, 1000 at 5000 ohms per volt sensitivity.

DC Current: 0 to 1, 10, 100, 500 mA; 0 to 10 amps.

AC Current: Direct dial scale reading to 250A when Amp-Clamp Model 150 is used.

dB: −20 to +10, −8 to +22, +6 to +36, +20 to +50

Output: 0.1 µF capacitor in series with ACV ranges thru 250 volts.

Resistance: 0 to 2K, 200K ohms; 0 to 20 megohms.

Accuracy: DC Volts ±2%; AC Volts ±3%; DC Current ±1.5% on 50 µA, ±2% on others; Resistance ±2.5° of arc on Rx1, ±2.0° of arc on others.

Simpson 260-7—Catalog No. 12268. With standard scale. Net Each	$119.00
Simpson 260-7M—Catalog No. 12269. With mirror scale. Net Each	$127.00
Simpson 260-7RT—Catalog No. 12272. With standard scale and in roll top safety case. Net Each	$139.00
Simpson 260-7MRT—Catalog No. 12273. With mirror scale and in roll top safety case. Net Each	$147.00
Simpson 260-7P—Catalog No. 12274. Same as 260-6 but has protective overload circuit with reset button that pops out when an overload is present. Net Each	$178.00
Simpson 260-7PM—Catalog No. 12277. Same as 260-6P but with mirror scale. Net Each	$178.00
Simpson 260-7PRT—Catalog No. 12279. Same as 260-6P but in roll top safety case. Net Each	$190.00

MODEL 270-5 VOM

Designed for hightest accuracy with taut band movement.
Mirror scale for precise readings.
External access battery and fuse compartment.
Complete with test leads, batteries and manual.

SPECIFICATIONS

DC Volts: 0 to 0.25, 1, 2.5, 10, 50, 250, 500, 1000 volts at 20,000 ohms per volt sensitibity.

AC Volts: 0 to 2.5, 10, 50, 250, 500, 1000 volts at 5000 ohms per volt sensitivity.

DC Current: 0 to 50 µAmps; 0 to 1, 10, 100, 500 mAmps; 0 to 10 Amps.

AC Current: Direct dial scale reading to 250A when Amp-Clamp adapter is used.

dB: −20 to +10, −8 to +22, +6 to +36, +20 to +50.

Output: 0.1 µF capacitor in series with AC voltage ranges thru 250 volts.

Resistance: Rx1 (2K ohms); Rx100 (200K ohms); Rx10,000 (20 megohms).

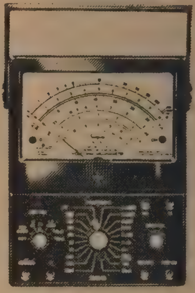
Accuracy: DC volts ±1.25%; AC volts + ±2%; DC current ±1.25% except 50 µA range, ±0.75%; Resistance ±1° of arc except Rx1 range, ±1.5°.

Simpson Model 270-5 Portable VOM—Catalog No. 12226. Net Each	$145.00
Simpson Model 270-5RT Portable VOM—Catalog No. 12227. In roll top safety case. Net Each	$165.00

MODEL 303-XL SOLID STATE FET VOM

High impact and shock resistant case.
Zero-center scale for nulling.
Low-power ohms for sensitive circuitry.
7 ranges on normal and low-power ohms.

Auto polarity indication.
Rechargeable battery operation,
120 VAC or 230 VAC input.
FET and IC circuitry.



SPECIFICATIONS

DC Volts: 0 to 0.03, 0.1, 0.3, 30, 100, 300, 1000.

AC Volts: 0 to 0.03, 0.1, 0.3, 30, 100, 300, 1000.

DC Current: 0 to 30 µA, 0 to 1, 30 mA, 0 to 1, 10 amps.

AC Current: 0 to 30 µA, 0 to 1, 30 mA, 0 to 1, 10 amps.

Resistance: Rx1, Rx10, Rx100, Rx1K, Rx10K, Rx100K, Rx1M at 10 ohms center scale.

Accuracy: ±2% F.S. on DC all ranges; ±3% F.S. on AC from 50 to 100 Hz.

Input Impedance: 10 megohms AC and DC.

Frequency Response: Flat thru 20 kHz.

Size: 7.2" h. x 5.5" w. x 3.3" d.

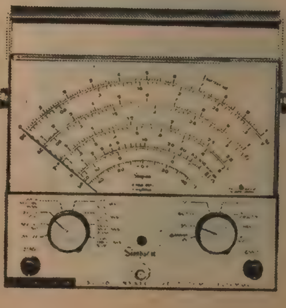
Weight: 2.5 lbs.

Simpson Model 303-XL FET VOM—Catalog No. 12250. Complete with probe, test leads, battery charger adapter and operator's manual. Net Each	$299.00
Simpson Model 303-XL FET VOM—Catalog No. 12251. For 220 VAC operation. Net Each	$299.00

MODEL 313 SOLID STATE FET VOM

Voltage ranges overload protected.
Portable battery powered operation.

Easy-to-read 7-inch scale.
Built-in "battery test" function.



SPECIFICATIONS

DC Volts: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1000.

AC Volts: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1000 rms; 0 to 0.9, 2.8, 9, 28, 90, 280, 900, 2800 p-p.

DC Current: 0 to 0.1, 1, 10, 100 mA, 0 to 1amp.

Resistance: Rx1, Rx10, Rx100, Rx1K, Rx10K, Rx100K, Rx1M at 10 ohms center scale.

Decibels: −10 to +60 dB in 8 ranges.

Accuracy: ±2% DC and ±3% AC full scale.

Input Impedance: 11 megohms DC, 10 megohms AC.

Frequency Response: ±0.5 dB from 20 Hz to 20kHz; to 100kHz on three lowest ranges.

Size: 7¾" w. x 6¾" h. x 4⅝" d.

Weight: 4⅓ lbs.

Simpson Model 313-3 FET VOM—Catalog No. 12255. Complete with probe, batteries and operator's manual. Net Each	$275.00

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

MODEL 886 SOUND LEVEL METER TYPE 2

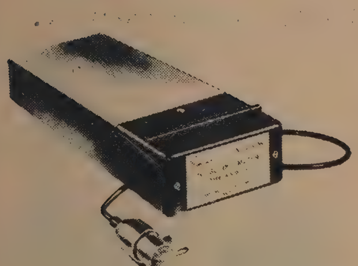
Sound level meter meets the requirements of IEC 123 and ANSI specifications S1.4-1971 for Type 2 general purpose sound level meters. Helps industry meet stringent OSHA and Walsh-Healy specifications for noise control. Quickly and accurately measures noise and sound levels in any interior or exterior location. High impact resistant case is contoured to minimize sound energy field reflections. Meter operates up to 50 hours on two standard 9-volt batteries. AC voltage output jack permits interfacing with recorders, such as the Simpson Model 2745, analyzers and other testers. External filter output jacks permit use with the Simpson Model 888 Octave Band Filter for noise frequency analysis. Built-in tripod mount also accommodates optional safety wrist strap. **Microphone:** Condenser, Type L per ANSI S1.12-1967; rated 300 ohms ±20% at 23° C. Microphone may be extended up to 25′ from meter with optional cable. **Sound Level Ranges:** 40 dB to 140 dB. Zero dB reference is 20 μ newtons/m². **Accuracy:** Meets ANSI specifications S1.4-1971 for a Type 2 insturment and IEC 123. **Weighting:** Standard A, B or C selection. **Signal Output:** 1.2 volts rms open-circuit, for a full scale meter indication. Source impedance is 620 ohms. **Power Requirements:** Two 9-volt batteries, NEDA #1604. **Size:** 10.07″ l. x 3.03″ w. x 1.87″ d. **Weight:** 1¼ lbs.

Simpson Model 886 Sound Level Meter—Catalog No. 12620. Complete with batteries and manual. Net Each........ **$395.00**

MODEL 884 SOUND LEVEL METER TYPE 2

Sound level meter meets OSHA and Walsh-Healy requirements for noise control. Conforms to ANSI S1.4-1971, Type S2A. AC voltage output jack permits interfacing with recorders, such as the Simpson Model 2745, and other testers. Tripod mounting socket also accommodates optional safety wrist strap. Overall response of meter is 50-130 dB. "A" weighting only in several ranges. Selection of fast or slow response. **Microphone:** Omnidirectional, condenser type L per ANSI S1.4 12-1967. **Frequency Response:** Flat from 20 Hz to 8kHz. **Impedance:** 300 ohms, ±20% at 23° C. **Accuracy:** Meets ANSI specifications S1.4-1971 for Type S2A. **Weighting:** "A" per ANSI specification S1.4-1971 for Type 2. **Signal Output:** 1.2 volts rms, open-circuit for full scale indication, 100 ohm impedance. **Power Required:** Two 9-volt NEDA #1604 batteries. **Size:** 8.18″ l. x 3.03″ w. x 1.87″ d. **Weight:** 13.5 ozs.

Simpson Model 884 Sound Level Meter—Catalog No. 12619. Complete with batteries and manual Net Each........ **$290.00**



MODELS 891-B AND 892 SOUND LEVEL DOSIMETERS

OSHA and ISO models available. Automatic computation of percent noise per OSHA or ISO specifications. Self-contained, pocket-size unit. Rugged, ½″ Electret clip-on microphone. Concealed readout only accessible using supervisor's "key". "Hold" memory feature permits temporary interruptions on later readouts. Short duration on measurements may be projected to 8-hr. or 40-hr. dosage. **Microphone:** Type M size (0.52″ dia.) omnidirectional Electret; max. sound pressure level, 14 dB. **Sound Threshold Level (LT):** Model 891-B, 80 dBA ±0.5 dBA; Model 892, 84.5 dBA ±0.5 dBA **Dynamic Range:** Model 891-B, 80 to 130 dBA per OSHA; Model 892, 85 to 115 dBA per ISO. **Crest Factor:** 10 dB at max. indication (115 dBA). **Reference:** 0 dB = 0.002 μbar. **Accuracy:** Both models meet ANSI S1.4-1971 specs for Type 2 instrument and S1.25-1976 draft for Personal Noise Dosimeters. **Max. Dose Accumulation:** 9999%. **115 dBA Memory:** Activated by sound levels exceeding 115 dBA; all decimal points flash. **Calibration:** 1000 Hz, 114 dB acoustic input. **Elapsed Time:** Logs operation time 0-99.99 hrs. at 36 sec. per count. **Hold:** Halts accumulation of dose and time. **Dose Readout:** 4-digit LED displays 0-9999% (100% dose = 90 dBA/8 hrs.). **Calibration Readout:** 4-digit LED displays 0100 with 114 dB, 1000 Hz acoustic input. **Power Requirements:** One 9 V battery (Neda 1604 or equivalent) provides more than 80 hrs. at 8 hrs./day operation. **Battery Test:** Left-most decimal indicates at least 8-hrs. battery life remaining. **Size:** 6.50″ x 2.625″ x 1.312″, including microphone. **Weight:** 11.5 oz., including battery and microphone.

Simpson Model 891-B Personal Dosimeter for OSHA—Catalog No. 12612. Net Each........ **$665.00**

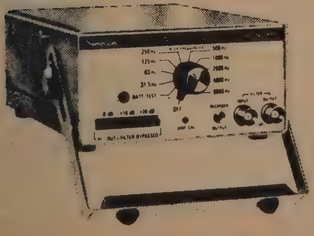
Simpson Model 892 Personal Dosimeter for ISO—Catalog No. 12608. Net Each........ **$665.00**

Simpson Model 891 Personal Dosimeter for Mining, Agriculture, and Construction—Range: 90 to 115 dBA. Catalog No. 12607. Net Each........ **$665.00**

MODEL 896 MULTI-FREQUENCY/LEVEL CALIBRATOR

A deluxe highly accurate instrument for field calibration of Simpson and other sound level meters. A slide switch selects 94 or 114 dB levels. A rotary switch selects output frequencies or battery test functions, and has two off positions. A red LED indicates adequate battery voltage. **Acoustic Output Frequencies:** 125, 250, 500, 1000, or 2000 Hz. **Sound Pressure Level:** 114 dB SPL or 94 dB SPL (reference: 0 dB = 20 μPascals). **Distortion:** Less than 5%. **Output Temperature Coefficient:** Less than −0.2 dB/°C. **Power Required:** One 9-volt NEDA 1604 battery. **Size:** 5⅞″ lg. x 2″ dia. **Weight:** 15 oz.

Simpson Model 896 Calibrator for Models 884 and 886—Catalog No. 12709. Net Each........ **$215.00**



MODEL 888 PRECISION OCTAVE BAND FILTER

Designed for laboratory use or with the Simpson Model 886 Sound Level Meter by direct cable connection for octave band analysis of noise. Recorder output and filter input and output are provided. Meets ANSI S1.11-1971, DIN45651 and ICE255 (1966) requirements. Instrument can be bench mounted or carried in the field with optional carrying case with shoulder strap. Has single switch control and built-in LED battery test indicator. **Center Frequencies:** 31.5, 63, 125, 250, 500, 1000, 2000, 4000 and 8000 Hz, switch selectable. **Filter Gain:** 0, +10 and +20 dB, switch selectable with bypass provision. **Power Required:** Two 9-volt NEDA #1604 batteries. **Size:** 7.19″ w. x 2.6″ h. x 6.01″ d. **Weight:** 2.6 lbs.

Simpson Model 888 Octave Band Filter—Catalog No. 12617. Complete with batteries, calibration screwdriver, connecting cable and operator's manual. Net Each........ **$550.00**

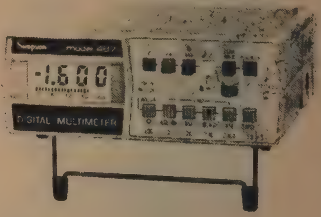
ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

Simpson Test Equipment

INSTRUMENTS THAT STAY ACCURATE

MODEL 467 DMM

3½ digit hand portable DMM with LCD digital and analog display. 50 sec pulse detection, and visible/audible indication of continuity and logic level. The model 467 combines the best features of high quality DDMs in a combination of digital and analog display to analyze both steady and pulsating signals, differential + and − peak-holding capability, and fast pulse detection and audible indication. This versatile instrument can actually replace the oscilloscope and the logic probe in many applications. In the differential peak mode, for instance, the Model 467 can make percent modulation and signal tracing measurements; in the pulse detection mode, it can give a visual and/or audible indication of pulse presence and logic states. Other standard features include: True Rms measuring capability, 0.1% basic VDC accuracy, continuity detection with both visual and audible indications, high voltage transient projection, and excellent overload protection. The unit is also safely designed to meet UL-1244 requirements. Available in blue (model 467) or black (model 467B) (specify). Unit comes complete with 9-volt battery, test leads with screw-on alligator clips, and instruction manual.



SPECIFICATIONS

DC Volts: 200 mV; 2, 20, 200, 100 V

Accuracy: ±(1% of input = 10 digits)

AC Volts: 200 mV; 2, 20, 200, 750 V

Accuracy: 20 to 40 Hz, ±(1.5% of input + 5 counts); 40 Hz to 1KHz, ±(0.5% of input + 5 counts, to 400 Hz only over 20 V); 1 KHz to 5 KHz, ±(0.5% of input + 5 counts, not specified over 20 V)

DC Current: 200 µA, 2, 20, 200, 200 mA

Accuracy: ±(1% of input + 10 digits)

Resistance: 0-200 Ω, 2, 20, 200, 2000 KΩ, 20 MΩ

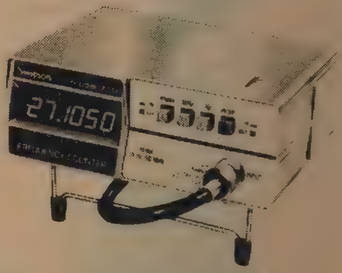
Accuracy: ±(0.25% of input + 1 count, or for 20 megohm ±1% of input + 1 count)

Temperature Coefficient: (0° C to +18° C and +28° C to +55° C). Less than 0.1 times the applicable accuracy specification per °C.

Simpson Model No. 467 (blue) and 467B (black)—Net Each	$270.00
Model No. 00748 RF Probe—Net Each	41.75
Model No. 00749 Hi-Voltage Probe—Net Each	51.75
Model No. 00758 Temperature Probe—Net Each	115.75
Model No. 153-2 AC Amp Clamp Adapter—Net Each	51.00
Model No. 00043 Extra Test Leads w/Alligator Clips—Net Each	9.50
Model No. 00813 Carrying Case—Net Each	26.75

MODEL 710 60 MHz FREQUENCY COUNTER

10 Hz to 60 MHz.
2 Ranges—Hz and MHz.
6 digit 0.35" LED display with overrange indicator.
Accuracy—±1 count (±time base accuracy), standard 10 ppm time base.
Resolves 1 Hz.
Switchable low-pass filter.
LSI circuitry.
Folding bench stand.



SPECIFICATIONS

Frequency Range: 10 Hz to 60 MHz.

Gate Time: 10 msec. (0.1 kHz resolution), 1 sec. (1 Hz resolution).

Accuracy: ±1 count ± time base accuracy.

Input Impedance: 1 megohm, shunted by 30 pF.

Input Sensitivity (sign wave): 50 mV ms from 10 Hz to 50 MHz; 100 mV rms from 50 MHz to 60 MHz.

Max. Input Voltage: 240 V peak from 10 Hz to 100 kHz; derated to 100 V peak at 1 MHz and 25 V peak at 60 MHz.

Internal Time Base:

Frequency: 6.5536 MHz.

Temperature Stability: ±10 ppm max., 0° C to +45° C.

Aging Rate: ±5 ppm max. per year.

Stability (with line voltage variations): ±1 ppm for ±10% line voltage variation

Input Filter: Low pass, 3 dB at 1 MHz

Display: 0.35", 7 segment, 6 digit.

Sample Rate: 5 samples/sec. at MHz switch position; 0.5 samples/sec at Hz position.

Operating Temperature: 0° C to +45° C.

Storage Temperature: −40° C to +70° C.

Power Requirements: 120 VAC ±10%, 50–400 Hz, approximately 5 VA.

Size: 2" h. x 5.63" w. x 4.6" d.

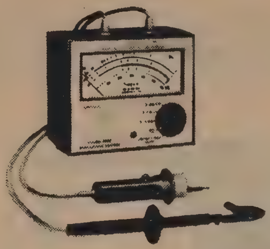
Weight: 12 oz.

Simpson Model 710 Frequency Counter—Catalog No. 12707. Net Each	$209.00
Simpson No. 00754—RF Connecting Cable. Net Each	12.00
Simpson No. 00755—Dummy Load, 50 ohm, 15 Watt capacity. Net Each	23.75
Simpson No. 00753—RF Connecting Cable For Use With Dummy Load. Net Each	12.00
Simpson No. 00756—12 VDC Auto Lighter Adapter. Net Each	20.25
Simpson No. 00791—Low-Capacity Probe. Net Each	46.25
Simpson No. 00747—Carrying Case. Net Each	31.00

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

MODEL 400-2 INSULATION TESTER

Tests insulation to 500 VDC.
Indicator probe illuminates measuring point.
Tests continuity in low resistance circuits.
Measures AC/DC voltage to 600 V.
Battery saver pushbutton operation.

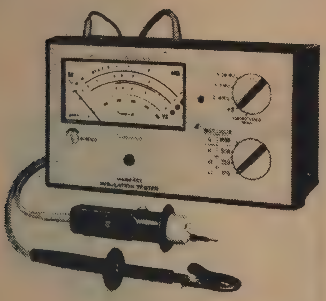


SPECIFICATIONS

Voltage Range: 0 to 600 volts AC or DC.
Resistance Ranges: (1) to 0.4 megohm
open circuit voltage 650 V, int. resis. 0.25 megohm.
(2) 0.01 to 5 megohms
open circuit voltage 650 V, int. resis. 0.15 megohm.
(3) 2 to 200 megohms.
open circuit voltage 650 V, int. resis. 0.15 megohm.
Accuracy: ±1.5% of full scale.
Continuity Testing: On-off point of lamp approx. 500 ohms.
Power Required: Nine 1½ volt batteries.
Size: 5.6" w. × 4.6" h. × 3.2" d.
Weight: 3 lbs.

Simpson Model 400-2 Insulation Tester—Catalog No. 12509. Complete with batteries, attached leads (one with illuminating probe), carrying strap and manual. Net Each........ **$415.00**

MODEL 401 INSULATION TESTER



Tests insulation to 1000 VDC.
Four selectable test voltages.
Tests continuity in low resistance circuits.
Measures AC/DC voltage to 1000V.
Indicator probe illuminates measuring point

SPECIFICATIONS

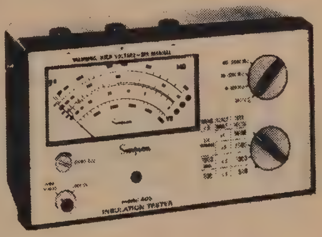
Test Voltage	Insulation Resistance, Megohms			Probe Lamp On-Off, Megohms
	1	2	3	
100	0 to 0.08	0.02 to 1	0.4 to 40	≧0.2
250	0 to 0.2	0.05 to 2.5	1 to 100	≧0.5
500	0 to 0.4	0.1 to 5	2 to 200	≧1.0
1000	0 to 0.8	0.2 to 10	4 to 400	≧2.0

Accuracy: ±1.5% of full scale.
Continuity Testing: On-off point of lamp approx. 500 ohms.
Power Required: Nine 1½ volt batteries.
Size: 9.6" w. × 5.5" h. × 4.13" d.
Weight: 4.9 lbs.

Simpson Model 401 Insulation Tester—Catalog No. 12502. Complete with batteries, attached leads (one with illuminating probe), carrying strap and manual. Net Each........ **$638.00**

MODEL 405-2 INSULATION TESTER

Tests insulation to 5000 VDC.
Four selectable test voltages.
Measures voltage to 1000 V.
Guard circuit protects meter movement from surface and creepage current.



Test Voltage	Insulation Resistance, Megohms		
	1	2	3
500	0 to 50	4 to 200	20 to 2000
1000	0 to 100	8 to 400	40 to 4000
2500	0 to 250	20 to 1000	100 to 10,000
5000	0 to 500	40 to 2000	200 to 20,000

Accuracy: Resistance, ±1.5% of full scale; Voltage, ±5% of full scale.
Dielectric Test Voltage: 11 KV rms.
Size: 9.6" w. × 5.5" h. × 4.13" d.
Weight: 5.3 lbs.

Simpson Model 405-2 Insulation Tester—Catalog No. 12504. Complete with two plug-in test leads, probes, batteries, carrying strap and manual. Net Each........ **$950.00**

MODEL 408-2 ILLUMINATION LEVEL METER

Universal matching to human eye response.
Accurate to an incident angle of 85°.
Readings as high as 50,000 foot candles.
Accessory tube permits luminance measurements.
Can be used as exposure meter.
Sensor is remote from meter.

SPECIFICATIONS

Illumination Ranges: 0 to 15, 50, 150, 500 ft. cd.; 0 to 1500, 5000, 15000, 50000 ft. cd. using slip-on x100 extension filter.
Luminance Ranges: 0 to 30, 100, 300, 1000 cd/ft^2 using slip-on 1.52" dia. tube.
Exposure Meter Ranges: 0.5 to 7400 ft. cd.
Accuracy: ±5%; with X100 filter, ±8%; with luminance tube, ±9%.
Size: 4.96" lg. × 3.62" w. × 1.77" d.
Weight: Under 1 lb.

Simpson Model 408-2 Illumination Level Meter—Catalog No. 12632. Complete with remote sensor, X100 range extension filter, luminance tube, manual and fitted case. Net Each........ **$350.00**

MODEL 410 PORTABLE PHOTO TACHOMETER

Contactless measurement at speeds up to 50,000 rpm.
Four ranges provided.
Battery operated.
Lightweight.

SPECIFICATIONS

Speed: 0 to 1500, 5000, 15000, 50000 rpm.
Accuracy: ±2% of full scale.
Sensitivity: With light colored marking on dark background (tape, chalk, paint), 0.2" to 2"; with reflective marking on non-reflective background (silver paint, fluorescent paint, mirror paint, tape), 2" to 12".
Power Required: Instrument, one 9 V battery; pick-up head, two 1.5 V batteries.
Size: Instrument, 5.98" l. × 3.6" w. × 1.77" d.; pick-up head, 8" l. × 1.9" w. × 1.42" d.
Weight: Instrument, 0.9 lbs.; pick-up head, 0.7 lbs.

Simpson Model 410 Photo Tachometer—Catalog No. 12604. Complete with batteries, accessories and operator's manual in fitted carrying case. Net Each........ **$360.00**

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

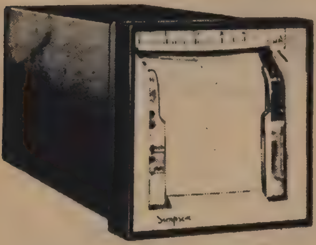
Simpson

Instrumentation Products

INSTRUMENTS THAT STAY ACCURATE

MODELS 2750-2, 2755, AND 2761 MINIATURE STRIP CHART RECORDERS

Strip chart recorders mount in 3¾" × 3¾" panel space. Use specially formulated paper which requires no ink. Will record continuously for over a month at 20 mm per hour, using a single roll of chart paper. **Chart Speeds:** 20 mm (0.79") and 120 mm (4.72") per hour switch selectable. Quick-change gear boxes are available to provide other speeds. **Chart Paper:** Pressure sensitive, 2.6" wide × 50' long. **Take-up Reel:** Built-in, automatic motor driven. **Motor Drive:** Synchronous, 3 VA, 90–160 VAC, 60 Hz. Supplied complete with two rolls of chart paper, panel mounting bracket, 60-inch three-wire line cord, test leads (Models 2761 and Model 2762) and manual. **Size:** 3¾" square by 9⅛" deep. Weight, 4 lbs. approximate.



MODEL 2750-2 ELECTRICAL VALUE RECORDER

Single or dual channel recorders available with AC and DC voltage and AC and DC current ranges and as a 0–1 mA/0–1 mA dual channel unit. **Chart Speeds:** Dual 20/120 mm per hour, standard; others available to 100/600 mm per hour. **Accuracy:** ±1.5% of full scale. **Impression Rate:** 3 seconds. **Power Required:** 90–160 VAC, 60 Hz, 3 VA.

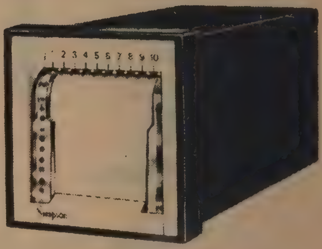
Range	Catalog Number	Net Each
0–500 DC μA	22133	$265.00
0–1 DC mA	22134	265.00
0–50 DC mV	22135	265.00
0–1 DC V	22136	265.00

Other ranges available on special order.

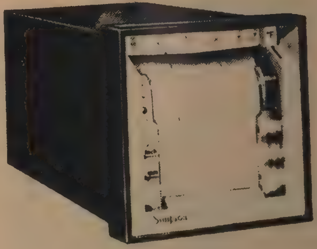
Range	Catalog Number	Net Each
0–10 DC V	22137	$265.00
0–50 DC V	22138	265.00
0–100 DC V	22139	265.00
0–250 DC V	22140	265.00
0–5 AC Amps	22141	275.00
0–150 AC V	22142	275.00

MODEL 2755 EVENT RECORDER

Provides continuous recording of five or ten separate events. Records time an event occurs, duration and the sequence on several channels. **Accuracy of Recording:** 10 msec nominal pen response. **Impression Rate:** Continuous. **Inkless Chart Speeds:** 20/120 to 600/3600 mm per hours. **Power per Solenoid:** 1.2 watts except AC models, 2.2 VA. **Power Required:** 90–160 VAC, 60 Hz, 3 VA.



10 Channels		
Voltage	**Catalog Number**	**Net Each**
6 VDC	22203	$675.00
12 VDC	22202	675.00
24 VDC	22201	675.00
24 VAC	22204	675.00
115 VAC	22200	675.00



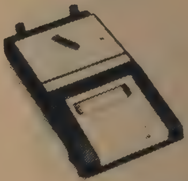
MODEL 2761 TEMPERATURE RECORDER

A single-channel, three-range recorder. Individual phono jacks are supplied for three temperature sensors. Inputs and ranges are selected by means of two rear-panel switches. **Temperature Ranges:** −50° F to +50° F; +50° F to +150° F; +150° F to +250° F. **Accuracy of Recording:** ±3° F. **Impression Rate:** 6 seconds. **Chart Speeds:** 20/120 mm per hour. **Power Required:** 90–135 VAC, 60 Hz, 2 VA.

Simpson Model 2761 Temperature Recorder Cat. No. 23151—Net Each **$425.00**

MODEL 605-2 MULTICORDER® CHART RECORDER

Three selectable chart speeds.
24 selectable ranges.
Shock-proof, taut-band movement.
Inkless recording of range and value.



SPECIFICATIONS

DC Volts: 0 to 12, 30, 60 millivolts; to 3, 15, 60, 300, 600 volts.
AC Volts: 0 to 6, 30, 150, 300, 600 volts.
DC Current: 0 to 600 μA; 0 to 1.5, 3, 6, 30, 150 mA; 0 to 1.2, 6 Amps.
AC Current: 0 to 3, 15, 60, 300 mA; 0 to 1.2, 6 Amps.
Accuracy: ±2.5% of full scale on recording; ±1.5% of full scale indicating.
Chart Speeds: 1, 3, 12 inches per hour.
Impression Rate: 1 or 2 seconds, selectable.
Size: 9.75" l. × 4.19" w. × 4" d.
Weight: 5½ lbs.

Simpson Model 605-2 Multicorder—Catalog No. 12613. For 120 VAC operation. Complete with test leads, two rolls chart paper and instructions. Net Each **$575.00**

Simpson Model 605-2 Multicorder—Catalog No. 12614. For battery operation. Complete with test leads, two rolls chart paper and instructions. Net Each **$725.00**

ELECTRO-MECHANICAL COUNTERS

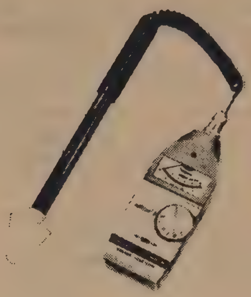
Provide accurate counting up to 600 counts per minute. Features include: Rugged, rigid structure; instant numerical switching, only complete figures visible; readable from wide angles; resets with front panel pushbutton control; counts dependably on 50 milliseconds pulses. Built to operate reliably under actual field conditions of vibration, humidity and extreme temperatures. **Max. Indication:** 9,999. **Numerals:** White on black, .15" w. × .2" h. **Power Required:** 4.2 watts nominal, ±15% of rated voltage. **Size:** Panel 2.14" w. × 0.4" d. × 1.84" h.; 1.88" deep behind panel. **Construction:** Bezel of rugged thermosetting materials, black matte finish; heavy steel frame with a formed aluminum cover.

Voltage	Model No.	Cat. No.	Net Each
120 AC, 60 Hz	103	12643	$44.40
6 DC	104	12641	44.40
12 DC	104	12642	44.40

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

MODEL 380M MICROWAVE LEAKAGE TESTER

Meets the measurement requirements of the federal performance standard for leakage from microwave ovens.
Measures microwave leakage from domestic, industrial and commercial equipment operating at 2450 MHz.
Fast or slow response time for best measurement.
Tripod mount for stable measurements.
Non-polarized, hand-held probe for power density measurement provides automatic 5 cm spacing with maximum operator safety.
Battery powered operation.



SPECIFICATIONS

Calibration Frequency: 2450 MHz, ±10 MHz.
Power Density Ranges: 0 to 2.5, 10, 25, 100 mW/cm^2 at ±1 dB accuracy.
Response Time: Fast, 1.2 sec. max.; Slow, 3.0 sec. nom.
Temperature Coefficient: ±0.1 dB/10° C.
Power Required: Two NEDA #1604 batteries.
Size: 8.18" l. × 3.03" w. × 1.87" d.
Weight: Under 1 lb.

Simpson Model 380M Microwave Leakage Tester—Catalog No. 12381. Complete with probe, foam spacer, two batteries and operator's manual in fitted carrying case. Net Each **$375.00**

MODEL 229, SERIES 2, AC LEAKAGE TESTER

For measurement of leakage current in 120 and 240 VAC appliances and electrical equipment in accordance with ANSI C101.1–1973 and proposed UL 1244.

SPECIFICATIONS

AC Current: 0 to 0.3, 1, 3, 10 mA.
AC Volts: 0 to 150, 300 volts.
Short Test: Red arc, 1500 ohms; Green arc, 1 megohm.
Accuracy: ±2% at 60 Hz.
Input Impedance: 1500 ohms in parallel with 0.15 µF.
Size: 7" h. × 5¼" w. × 3⅛" d.
Weight: 3 lbs.

Simpson Model 229-2 AC Current Leakage Tester—Catalog No. 12267. Complete with test leads, batteries and operator's manual. Net Each **$173.00**

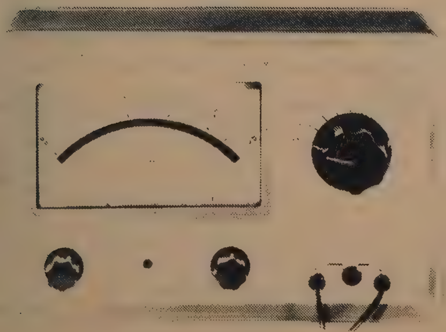
MODEL TS-111 VOM

Designed for railroad servicing.
Built-in pointer stop for peak current measurements.
Special "power present" warning circuit for resistance measuring.
Complete with battery, test leads, leather case and operator's manual.
Measures "ON" time of coded track signals directly in percent.
Measures AC voltage superimposed on DC track signals.

SPECIFICATIONS

DC Volts: 0 to 0.6, 3, 15, 60, 300 volts at 1000 ohms per volt sensitivity.
AC Volts: 0 to 3, 15, 150, 600 volts at 300 ohms per volt sensitivity. Will measure up to 100 VAC superimposed on up to 20% DCV.
DC Current: 0 to 15, 60, 300 mA; 0 to 1.5, 6, 30 amps.
AC Current: 0 to 3, 30 amps.
Resistance: 0 to 100, 10,000 ohms.
Accuracy: DC volts ±2%; AC volts ±3%; DC current ±2%; AC current ±3%; Pulse On ±2%.
Pulse "ON" Time: 0 to 100%.

Simpson Model TS-111—Catalog No. 12159. Net Each **$325.00**



MODEL 1699 MULTI-RANGE PRECISION MILLIOHMMETER

Ideal for lab use, for measuring low resistance values accurately (±1% of full-scale) and rapidly. Measures resistance values from .001 to 50 ohms by comparing with standard internal resistance. Test leads with Kelvin Clips are coupled with unique circuit using separate voltage and current paths to insure accuracy. Large 7" meter has mirrored scale and knife-edge pointer for easy readability. Single arc, 90° dial has 100 divisions. Battery operated, low current (less than 7.95 mW). **Ranges:** 0–.05, .1, .25, .5, 1, 5, 10, 50 ohms. **Max. Output Current:** 460 mA in lowest range, 0.5 mA in 50-ohm range. **Max. Dissipation:** (In sample) 7.95 mW in lowest range, .012 mW in 50 ohm range. **Size:** 11⅛" × 7⅜" × 3¼". **Net Weight:** 5 lbs. 10 oz.

Simpson Model 1699—Catalog No. 13299. With batteries, test leads and manual. Net Each **$450.00**

Simpson No. 00156—Extra Kelvin leads. Net Each **$12.25**

ACCESSORIES LISTED ON ANOTHER SIMPSON PAGE

INSTRUMENT CARRYING CASES

Provide protection and carrying convenience for your instruments.

Fits Model(s)	Description	Cat. No.	Net Each
150	Carrying Case	00548	$16.50
160	Low cost vinyl	02935	10.75
160	Vinyl	02225	22.50
160	Vacuum formed	02929	37.00
208, 209	Carrying case	00578	22.75
250, 255, 260, 260XL, 261, 265, 270, 303XL	Utility vinyl	00549	40.75
250, 260, 260XL, 261, 265, 270	Vinyl	01818	29.50
250, 260, 260XL, 261, 265, 270, 303	Ever-Redy vinyl Deluxe case	00805 00812	36.00 36.00
260 and Add-A-Tester	Leather case	01871	36.00
260-2, Model 9, Model 10, 880	Roll top safety case	06192	24.75
250; 255; 260-3, -4, -5 family; 261; 265; 270	Roll top safety case	00249	27.90
260-6 family, 270-4	Roll top safety case	00248	27.90
260 series except 260-6XL	Snap-on protective face cover	02163	45.35
262, 263, 267, 268, 269, 388-3L	Ever-Redy vinyl	05262	32.00
294, 295, 296	Vinyl	02226	29.00
294, 295, 296	Low cost vinyl	02228	11.25
312, 313, 314	Vinyl	00577	34.75
312, 313, 314	Leather, sponge lined	01565	40.00
355	Ever-Redy, vinyl	06355	12.25
360-2	Carrying case	00816	41.75
380	Vinyl	00782	36.00
385-3L, 387	Ever-Redy, leather	08073	24.75
392	Leatherette covered	00831	19.75
400	Vinyl carrying case	01615	29.75
401, 405	Vinyl case	01616	33.25
408	Carrying case	00809	32.00
410	Vinyl	00811	36.75
460-3, 464, 465	Vinyl	01617	42.25
461, 710	Carrying Case	00747	31.00
461-2	Carrying case	00814	28.25
884, 886	Package case	00217	59.50
Microtesters	Ever-Redy vinyl	04299	22.50
H. V. Probe	Snaps onto 00549	00574	12.25
TS-111	Carrying case	00719	44.00

SPECIAL USE PROBES

For Meter(s)	Description	Cat. No.	Net Each
260-2	40,000 VDC	00033	$42.00
250; 255; 260 (series 3, 4, 4M, 5, 5M, 5P, 6, 6M, 6P, 6XL, 6XLP); 261; 261-2; 267; 270; 270 (series 2, 3, 4)	40,000 VDC 10,000 VDC 10,000 VAC	00168 00034 00036	42.00 42.00 42.00
260 (series 6, 6M, 6P, 6XL, 6XLP); 270-4	5,000 VDC 5,000 VAC	00795 00794	14.50 14.50
263; 265	40,000 VDC	00037	42.00
269	40,000 VDC	00039	42.00
303-1	RF probe	00073	26.25
311-1	RF probe 40,000 VDC	00731 00725	42.00 42.00
311-3	RF probe 40,000 VDC	00176 00726	32.50 42.00
312	RF probe 40,000 VDC	00152 00727	26.25 42.00
313	RF probe 40,000 VDC	00191 00728	24.25 42.00
314	RF probe 40,000 VDC	00193 00729	24.25 42.00
360; 303XL; 460; 464; 465	40,000 VDC	00432	51.75
461	40,000 VDC	00749	51.75

00805

00812

TEST LEADS AND PROBES

For Meter(s)	Description	Cat. No.	Net Each
150	Test leads	00533	$5.00
150 with 160	Adapter pins	02056	4.00
160	Probe tip leads Alligator clip leads	02055 01927	7.00 6.75
262 (series 3 only), 263, 265, 267, 268, 269 (series 2&3 only), 270, 360, 460, 464, 465	Probe tip leads Alligator clip leads Retractable grip tip probe for use with 00115 leads	07538 07500 00118	8.25 7.25 9.00
230, 240, 260 (series 1&2 only), 372, 279	Probe tip leads Alligator clip leads	08381 08375	8.25 6.75
250, 255, 260, 261, 270	Low-power ohms probe	00735	53.75
256, 257	Comb. probe tip and removable alligator clip leads	07541	9.00
262 (series 1&2 only), 269 (series 1 only)	Comb. probe tip and removable alligator clip leads	08463	6.50
295, 296	Voltage probe	02227	5.00
303 (series 1 only), 651	DC probe tip lead AC probe tip lead Ground lead, 303-1	00067 00068 00069	12.25 12.25 6.50
303 (series 2 only),	AC/DC probe tip lead	00150	26.25
311	AC/DC probe tip lead	00175	26.00
313	AC/DC probe and ground clip lead	00189	25.25
314	AC/DC probe and ground clip lead	00194	57.75
362, 371, 373, 374, 375, 376, 377, 378, 387	Probe tip leads Alligator clip leads	08379 08376	8.25 6.75
383A	Test lead assembly	07509	6.75
390	Test cord assembly	08418	16.50
400, 401, 405	Probe and clip	00737	4.75
455, 458, 459	Shielded input cable	07549	12.00
461	Comb. probe tip and removable alligator clip leads	00043	9.50
466, 715	Shielded input cable	00100	10.50
650	Test lead	07545	4.50
TS-111	Test leads	00236	9.25

TEMPERATURE TESTER LEADS AND PROBES

Fits Meter(s)	Description	Cat. No.	Net Each
385-3L, 389-3L, 651	Free air temp. probe	00789	$28.25
	15 ft. thermistor & lead	00010	25.00
	30 ft. thermistor & lead	00216	25.00
	50 ft. thermistor & lead	00415	26.75
	100 ft. thermistor & lead	00416	32.50
	150 ft. thermistor & lead	00417	40.75
	Surface temp. probe	00790	22.50
388, 388-2L	8 ft. rugged service lead	00496	21.00
	Gen pur. thermocouple	00190	21.00
	Surface temp. thermocouple, 1000° F max.	00187	26.75
255	5 ft. thermocouple	00163	14.75

ACCESSORIES

FOR MODELS 2750, 2755, 2760, 2761 AND 2762

Cat. No.	Description	Net Each
22392	Portable carrying handle	$40.75
22395	Plastic window for direct paper feedout*	9.75
22394	Line cord, 3 wire, 60", with pigtail term.	8.55
22393	Line cord, 3 wire, 60", with 117 VAC plug.	9.45
22300	Gear unit for 20/120 mm per hour speeds	37.65
22301	Gear unit for 30/180 mm per hour speeds	55.05
22302	Gear unit for 60/360 mm per hour speeds	55.05
22303	Gear unit for 100/600 mm per hour speeds	55.05
22304	Gear unit for 300/1800 mm per hour speeds#	83.85
22305	Gear unit for 600/3600 mm per hour speeds#	83.85

*Not available for Model 2755. #For Model 2755 only.

FOR MODELS 2761 AND 2762

Cat. No.	Description	Net Each
00789	Free air temperature probe	$28.25
00790	Surface temperature probe	22.50
00010	15-foot lead & thermistor	25.00
00216	30-foot lead & thermistor	25.00
00415	50-foot lead & thermistor	26.75
00416	100-foot lead & thermistor	32.50
00417	150-foot lead & thermistor	40.75

FOR MODELS 604-2 AND 605-2

Cat. No.	Description	Net Each
22307#†	Gear unit for 30/60/90 in/hour	$ 97.85
06526#	Shunt, 5/10/20 DC Amps	68.05
06531#†	Shunt, 100 DC Amps	93.15
06529†	Shunt, 120/300/600 DC Amps	152.00
02461†	Trans., 30/120/600 AC Amps, ±3%	95.15
02462†	Trans., 30/120/600 AC Amps, ±1%	170.90
02463†	Trans., 30/120/600/1200 AC Amps, ±3%	259.85
22923†	Surface thermocouple	112.55
22924†	Immersion thermocouple	112.55

#For Model 604-2. †For Model 605-2.

TEMPERATURE SENSORS FOR SERIES 2760

Cat. No.	Description	Net Each
23235*	Stainless, 0.187" × 5", 10' leads	$64.50
23245#	Stainless, 0.187" × 5", 10' leads	38.60
23246§	Stainless, 0.187" × 5", 10' leads	38.60

*Pt-100 Resistance bulb with 100 ohms resistance at 0° C.
#I/C thermocouple type with 10 ohms resistance.
§C/A thermocouple type with 10 ohms resistance.

CHART PAPER FOR MODELS 604-2 AND 605-2

Cat. No.	Description	Net Box of 10 Roll
20096	60 divisions, 100 to 130 VAC	$27.50
20097	50 divisions, standard models	27.50
20099	60 divisions, standard models	27.50
20098	75 divisions, standard models	27.50
02612	50 divisions, for 604-2 only	45.60
02614	30 divisions, for 605-2 only	45.60

CHART PAPER FOR MODEL 2750 SERIES

Cat. No.	Calibration	Net Box of 10 Rolls
22310	20 mm/hour, 30 divisions	$38.55
22311	20 mm/hour, 50 divisions	38.55
22312	30 mm/hour, 30 divisions	38.55
22313	30 mm/hour, 50 divisions	38.55
22314	60 mm/hour, 30 divisions	38.55
22315	60 mm/hour, 50 divisions	38.55
22316	100 mm/hour, 30 divisions	38.55
22317	100 mm/hour, 50 divisions	38.55

CHART PAPER FOR MODEL 2755 SERIES

Cat. No.	Calibration	Net Box of 10 Rolls
22380	20 mm/hour, 10 channel markings	$38.55
22381	30 mm/hour, 10 channel markings	38.55
22382	60 mm/hour, 10 channel markings	38.55
22383	100 mm/hour, 10 channel markings	38.55

CHART PAPER FOR MODEL 2760 SERIES

Cat. No.	Calibration	Net Box of 10 Rolls
	PLATINUM RESISTANCE TYPE	
23200	20 mm/hour, 60° C	$36.70
23201	20 mm/hour, 100° C	38.55
23202	20 mm/hour, 150 to 300° C	38.55
23203	20 mm/hour, 200 to 400° C	38.55
23204	30 mm/hour, 60° C	38.55
23205	30 mm/hour, 100° C	38.55
	THERMOCOUPLE TYPE	
23248	20 mm/hour, 0 to 500° F	$38.55
23249	20 mm/hour, 0 to 800° F	38.55
23250	20 mm/hour, 0 to 1500° F	38.55
23251	20 mm/hour, 0 to 2500° F	38.55

CHART PAPER FOR MODEL 2761 SERIES

Cat. No.	Calibration	Net Box of 10 Rolls
23237	20 mm/hour	$38.55
23238	30 mm/hour	38.55

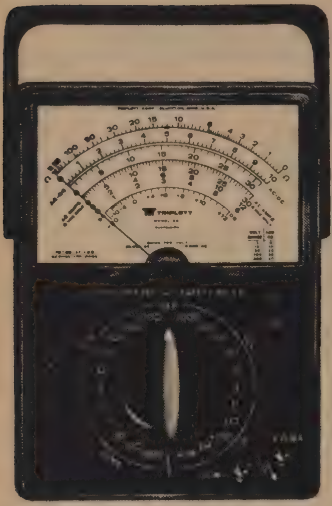
CHART PAPER FOR MODEL 2762 SERIES

Cat. No.	Calibration	Net Box of 10 Rolls
23241	20 mm/hour	$38.55
23242	30 mm/hour	38.55
23243	60 mm/hour	38.55
23244	100 mm/hour	38.55

TRIPLETT Test Instruments

It's new. It's x'tra rugged. It's overload protected. It's safety designed. The Triplett Model 60.

MODEL 60 TYPE 2 V-O-M



1. X'tra rugged—Will withstand an accidental drop up to a five foot height.
2. Overload protected—All ranges protected by a diode and unusual three-fuse arrangement including ⅛ amp 1 amp and 2 amp/1000 V fuses.
3. Safety designed for you—Designed to most rigid safety standards; completely insulated unit including newly designed safety leads.

RANGES

DC Volts: 0–.3–1–3–10–30–100–300–1000 (approx. 20,000 ohms per volt).

AC Volts: 0–3–10–30–100–300–1000 (approx. 5000 ohms per volt).

Ohms: 0–1K–10K–100K–1 meg–10 meg (12 ohms center scale on low range).

DC Milliamperes: 0–0.1–10–100–1000 (approx. 320 mV).

Decibels: −20 dB to +52 dB ("0" dB is equal to .775 ACV across 600 ohms).

Output Volts: (AC—Requires external capacitor): 0–3–10–30–100–300 (approx. 5000 ohms per volt).

AC Amperes: (Requires accessory Model 10 Adapter) 0–6–12–30–60–120–300.

Accuracy (Full scale): ±2% DC; ±3% AC.

Meter: Ruggedized 45 µA suspension movement module, polarity reversing switch.

Scale Length: Approx. 4½".

Overload Protection: Meter movement protected by a diode module, ⅛ amp/250 V, 1 amp/250 V and 2 amp/1000 V (20 KW) fuses.

Confidence Test: Switch position provides reassurance check of meter movement.

Case: Molded, orange, 5¼" w. x 7¼" h. x 3¼" d.

Batteries: Neda 9 V #1604, 1–1½ V D cell.

Triplett Model 60—Complete with 48" leads, insulated alligator clips, batteries, spare ⅛ A and 1 A fuses and instruction manual. Shpg. wt. 2½ lbs. Net Ea. **$140.00**

LABORATORY ACCURACY
MODEL 60A V-O-M

1. X'tra rugged—Will withstand an accidental drop up to a five foot height.
2. Overload protected—All ranges protected by a diode and unusual three-fuse arrangement including ⅛ amp 1 amp and 2 amp/1000 V fuses.
3. Safety designed for you—Designed to most rigid safety standards; completely insulated unit including newly designed safety leads.

RANGES

DC Volts: 0–.3–1–3–10–30–100–300–1000 (approx. 20,000 ohms per volt).

AC Volts: 0–3–10–30–100–300–1000 (approx. 5000 ohms per volt).

Ohms: 0–1K–10K–100K–1 meg–10 meg (12 ohms center scale on low range).

DC Milliamperes: 0–0.1–10–100–1000 (approx. 320 mV).

Decibels: −20 dB to +52 dB ("0" dB is equal to .775 ACV across 600 ohms).

Output Volts: (AC—Requires external capacitor): 0–3–10–30–100–300 (approx. 5000 ohms per volt).

AC Amperes: (Requires accessory Model 10 Adapter) 0–6–12–30–60–120–300.

Accuracy (Full scale): ±1½% DC; ±3% AC.

Scale Length: Approx. 4½".

Meter: Ruggedized suspension movement module, polarity reversing switch, mirror scale, ½% resistors.

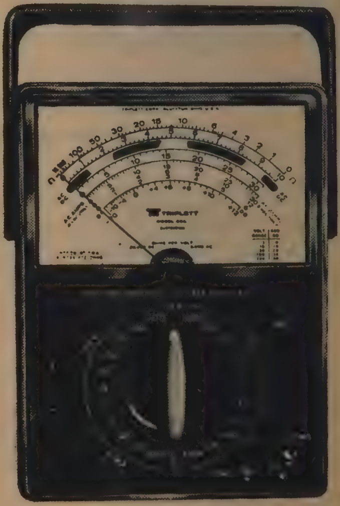
Overload Protection: Meter movement protected by a diode module, ⅛ amp/250 V, 1 amp/250 V and 2 amp/1000 V (20 KW) fuses.

Confidence Test: Switch position provides reassurance check of meter movement.

Case: Molded, black, 5¼" w. x 7¼" h. x 3¼" d.

Batteries: Neda 9 V #1604, 1–1½ V D cell.

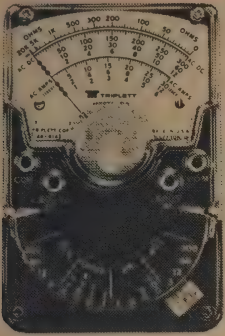
Triplett Model 60A—Complete with 48" leads, insulated alligator clips, batteries, spare ⅛ A and 1 A fuses and instruction manual. Shpg. wt. 2½ lbs. Net Ea. **$151.00**



ACCESSORIES FOR 60

Triplett No. 10-2739—Leather Carrying Case. Net Each	**$33.40**
Triplett No. 79-357—30KVDC High Voltage Probe. Net Each	**$37.50**
Triplett No. 79-362—30KVAC High Voltage Probe. Net Each	**$37.50**
Triplett No. 91-628—30 amp DC Current Shunt. Net Each	**$26.70**
Triplett No. 91-629—100 amp DC Current Shunt. Net Each	**$33.00**
Triplett No. 79-433—6 KVDC High Voltage Probe Net Each	**$19.90**
Triplett No. 79-432—6 KVAC High Voltage Probe Net Each	**$19.90**
Triplett No. 60-211—Clamp-on AC Ammeter. (Requires 79-354 lead). Net Each	**$34.70**
Triplett No. 79-417—Attachment Lead. Net Each	**$6.80**
Triplett No. 60-218—Line Separator. Net Each	**$13.70**
Triplett No. 79-373—Clip Leads for High Density Circuits. Net Each	**$8.40**
Triplett No. 79-374—Replacement Safety Test Leads. Net Each	**$7.40**

TRIPLETT Test Instruments



Model 310

NEW DIODE-PROTECTED, HAND-SIZE V-O-M'S

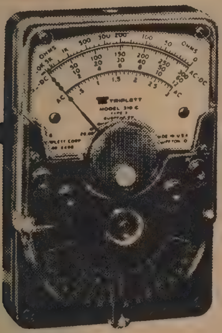
MODEL 310 TYPE 4

1. Drop-resistant, hand-size VOM with high-impact thermoplastic case.
2. 20,000 ohms per volt DC and 5,000 ohms per volt AC; diode overload protection with fused R x 1 range.
3. Single range switch; direct reading AC amps range to facilitate AC ammeter usage.

RANGES

DC Volts: 0–3–12–60–300–600 (20,000 ohms per volt).
AC Volts: 0–3–12–60–300–600 (5,000 ohms per volt).
Ohms: 0–20K–200K–2 Meg–20 Meg (200 ohms center scale on low range).
DC Microamperes: 0–600 at 250 mV.
DC Milliamperes: 0–6–60–600 at 250 mV.
Accuracy: ±3% DC; ±4% AC (full scale).
Scale Length: 2⅛". Self-shielded.
Case: Molded, black, 2¾" w. x 1 5/16" d. x 4¼" h.
Batteries: NEDA #910,220.

Triplett Model 310—Complete with 42" leads, batteries and instruction manual. Shpg. Wt., 2 lbs. Net Each........**$70.00**



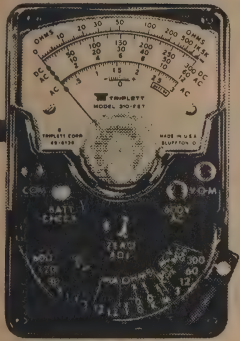
Model 310-C

MODEL 310-C TYPE 5

1. Hand-size V-O-M with diode overload-protected suspension movement.
2. 20,000 ohms per volt DC and 15,000 ohms per volt AC.
3. Single, enclosed range switch minimizes error; DC polarity-reversing switch.

Same as 310 above, except suspension meter and polarity reversing switch for DC ranges.

Triplett Model 310-C—Shpg. Wt., 2 lbs. Net Each........**$95.00**



Model 310-FET

MODEL 310-FET TYPE II

1. Hand-size FET V-O-M with 10-megohm DC input resistance and diode overload-protected suspension movement.
2. Low voltage range of 300 mVDC; x1 megohm range.
3. Single range switch; DC polarity-reversing switch.

RANGES

DC Volts: 0–0.3–1.2–6–30–120–600. Input resistance, 10 megohms.
AC Volts: 0–3–12–60–300–600 (5,000 ohms per volt).
Ohms: 0–5K–500K–50 Meg–5,000 Meg (50-ohm center scale on low range).
DC Milliamperes: 0–0.12–1.2 at 300 mV.
Accuracy: ±3% DC; ±4% AC. Diode protected suspension meter.
Scale Length: 2⅛". Battery check on selector switch.
Case: Molded, black, 2¾" w. x 1⅛" d. x 4¼" h.
Batteries: NEDA 7 V, #1501M, 1½ V #910A.

Triplett Model 310-FET—Complete with 42" leads, alligator clips, batteries and instruction manual. Shpg. Wt., 2 lbs. Net Each........**$127.00**

Model 10

Model 101

ACCESSORIES FOR 310'S

Model 10 Clamp-on AC Ammeter—For 310 and 310-FET. Ranges, 0–6–12–30–60–120–300. Net Each........**$34.70**

Model 10-C Clamp-on AC Ammeter—For 310-C. Ranges, 0–6–12–30–60–120–300. Net Each........**$34.70**

Model 101 Line Separator—Divides two conductor cords direct or increases Model 10 sensitivity 10x and 20x. Net Each........**$13.70**

Model 311 Lead—42" long lead to separate Model 10 from 310 unit for easy reading in awkward spots. Net Each........**$6.80**

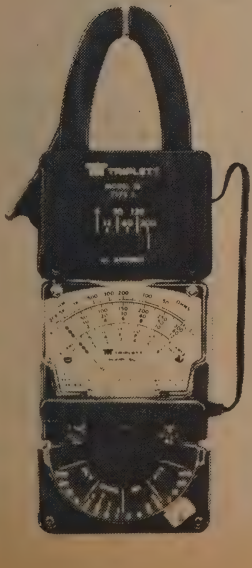
Model 369 Carrying Case—For Model 310's. Net Each...**$8.50**

Model 369-S Carrying Case—For Model 310's; front opens permitting use of tester in case. Net Each........**$19.90**

Model 379 Carrying Case—For Model 310 and Model 10 in combination, plus Model 101. Net Each........**$16.20**

Model 79-153 Needle Tip Replacement Lead—For Model 310 series. Net Each........**$6.80**

Model 79-296 Blunt Tip Replacement Lead—For Model 310 series. Net Each........**$10.70**



Model 100

HAND-SIZE V-O-M CLAMP-ON AMMETERS

1. Complete maintenance kit with V-O-M and clamp-on ammeter.
2. Diode overload protected; 20,000 ohms per volt on DC.
3. AC clamp-on will read up to 300 amps AC.

Model 100—Complete set includes Model 310, Model 10, Model 101, No. 311 lead and Model 379 case. Shpg. Wt., 7 lbs. Net Each........**$138.00**

Model 100-C—Complete set includes Model 310-C, Model 10-C, Model 101, No. 311 lead and Model 379 case. Shpg. Wt., 7 lbs. Net Each........**$166.00**

Model 100-FET—Complete set includes Model 310-FET, Model 10, Model 101. No. 311 lead and Model 379 case. Shpg. Wt., 7 lbs. Net Each........**$198.00**

Model 100-T—Complete set includes Model 310-T, Model 10, Model 101, No. 311 lead, temperature probe and Model 379 case. Shpg. Wt. 7 lbs. Net Each........**$178.00**

MODEL 3500 DIGITAL MULTIMETER

1800
TRIPLETT
MODEL 3500

1. Autorange DMM—Features simplist, easiest operation with auto or manual range selection plus range annunciators; only two jacks make all the measurements except the 10 A range.
2. Zero Adjust—Relative reference feature (offset) works with all DMM functions to display subsequent readings as plus or minus deviations from stored input.
3. Overload Protection—With special 0.3A/250 V and 2 A/600 V fuse arrangement; Hi and Lo Power ohms on all ranges, plus audible continuity tone selection.

SPECIFICATIONS

Ranges:

DC Volt (Automatically or Manually Selected): 0–0.2, ±0.25% of reading 1 digit; 0–2–20–200, ±0.5% of reading ±1 digit; 0–1000, ±0.75% of reading ±1 digit.

AC Volts (Automatically or Manually Selected): 0–2–20–200, ±0.75% of reading ±3 digits; 0–600, ±1.0% of reading ±3 digits.

Low Power Ohms (Automatically or Manually Selected): 0–2k–20k–200k, ±0.75% of reading ±1 digit; 0–2M, ±1.5% of reading ±1 digit.

High Power Ohms (Automatically or Manually Selected): 0–200–2k–20k–200k, ±0.5% of reading ±1 digit; 0–2M, ±1.5% of reading ±1 digit.

DC Current (Manually Selected): 0–20–200 mA, ±1.2% of reading ±1 digit; 0–10 A, ±1.7% of reading ±1 digit.

AC Current (Manually Selected): 0–20–200 mA, ±1.5% of reading ±4 digits; 0–10 A, ±1.75% of reading ±4 digits.

Display: 10mm, 3½-digit LCD with mV, V, mA, A, Ω kΩ. LPΩ, Auto, Batt, Adj., —, AC annunciators.
Operating Temperature: +18°C to +28°C (0°C to +40°C with reduced accuracy).
Batteries: Two NEDA 1.5 V, 15 A "AA" batteries.
Size: Approx. 3½" w. × 6" h. × 1⅝" d.
Weight: Approx. 12½ oz. with batteries.

Triplett Model 3500—Complete with 36" test leads, spare fuse. batteries and instruction manual.
Net Each **$140.00**

MODEL 3550 DIGITAL MULTIMETER

1. Handheld—6 functions, 32 ranges with 200 µA AC and DC HI-LO Ohms/Diode Check on all ranges.
2. Overload Protected—All ranges protected with special 2 A/250 V fuse arrangement. No nuisance fuse blows on volt and ohm ranges.
3. Safety designed input jacks and test leads; tilt stand for bench use; easy access to battery compartment.

SPECIFICATIONS

Ranges:

DC Volts: 0–0.2, ±.25% of reading ±1 digit; 0–2–20–200, ±0.5% of reading ±1 digit; 0–1000, ±1.0% of reading ±1 digit.

AC Volts: 0–0.2–2–20–200, ±1.0% of reading ±3 digits; 0–750, ±2.0% of reading ±3 digits.

Low Power Ohms: 0–200–2k–20k–200k–2M, ±0.75% of reading ±1 digit; 0–20M, ±2.0% of reading ±1 digit.

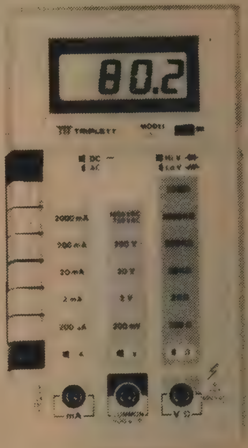
High Power Ohms/Diode Check: 0–200–2k–20k–200k–2M, ±0.75% of reading ±1 digit; 0–20M, ±2.0% of reading ±1 digit.

DC Milliamperes: 0–0.2–2–20, ±1.0% of reading ±1 digit; 0–200–2000, ±2.0% of reading ±1 digit.

AC Milliamperes: 0–0.2–2–20–200, ±2.0% of reading ±3 digits; 0–2000, ±3.0% of reading ±3 digits.

Display: 0.5", 3½-digit LCD with polarity and low battery indication.
Operating Temperature: 0°C to +50°C.
Battery: NEDA 9 V, 1604 A; 500 hrs. battery life typical.
Size: Approx. 3½" w. × 6¾" h. × 1½" d.
Weight: Approx. 14 oz. with battery.

Triplett Model 3550—Complete with 42" test leads, battery and instruction manual.
Net Each **$85.00**



ACCESSORIES

MODEL 3500

Triplett Model 15 Temperature Probe—Net Each	**$75.00**
Triplett No. 79-513 Test Loads—Net per 2	**$6.80**
Triplett No. 79-516 Miniature Clip Leads—Net per 2	**$8.40**
Triplett No. 10-3141 Man-Made Leather Case—Lid opens for use in case. Net Each	**$18.90**
Triplett No. 10-2969 Man-Made Leather Case—Top opening. Net Each	**$10.80**
Triplett No. 10-2961 Vinyl Case—Padded, black. Net Ea.	**$7.50**
Triplett No. 79-517 H.V. Probe (0-6 kV AC/DC)—Net Each	**$19.90**
Triplett No. 79-518 H.V. Probe (0-30 kV AC/DC)—Net Each	**$37.50**
Triplett No. 91-657 External Shunt (0-20 A AC/DC)—Net Each	**$26.70**
Triplett No. 255-99 Wire Tilt Stand—Net Each	**$1.00**
Triplett No. 10-3137 Battery Cover—Net Each	**$1.00**

MODEL 3550

Triplett Model 15 Temperature Probe—Net Each	**$75.00**
Triplett No. 79-514 Low-Cost Replacement Test Leads—Net per Set of 2	**$2.00**
Triplett No. 79-513 Quality Replacement Test Leads—Net per Set of 2	**$6.80**
Triplett No. 10-2961 Vinyl Carrying Case—Net Each	**$7.50**
Triplett No. 255-100 Plastic Tilt Stand—Net Each	**$1.00**
Triplett No. 10-3140 Battery Cover—Net Each	**$1.00**

MODEL 15 TEMPERATURE PROBE

Two temperature ranges (selectable); −50°C to +150°C and −58°F to +302°F. Universal 0.75" center banana plugs. Can be used with any analog or digital multimeter with input impedance of 10 megohms or higher.

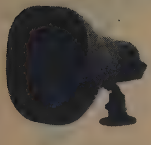
SPECIFICATIONS

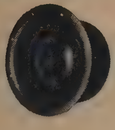
Ranges: −50°C to +150°C and −58°F to +302°F.
Output Voltage: 1 mV DC per degree F or C.
Batteries: Two NEDA 1.5 V, 15 A "AA" batteries.
Compatibility: Adapts digital or analog multimeter to direct temperature readings.
Test Lead: Black, 39" long, with silicon temperature sensor in probe tip.
Size: 2¼" w. × 2¾" h. × 1 5/16" d.
Supplied with batteries, adapters for insulated female inputs (Triplett Model 64 and 4000 Series) and miniature female inputs (Triplett Model 3400 Series). One year warranty.

Triplett Model 15 Temperature Probe—Net Each	**$75.00**
Triplett No. 79-497 Test Lead Adapter—For Model 3400 Series. Net Each	**$6.50**
Triplett No. 79-509 Test Lead Adapter—For Model 4000 Series and Model 64. Net Each	**$6.50**

Speakers and Accessories

"OMNI-PURPOSE SPEAKERS/PAGING, INTERCOM & SIGNALLING/AP SERIES"

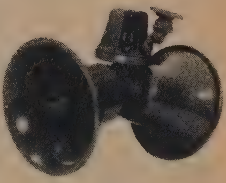

AP-15TC


APF-15T

AP-30TC

APC-30T

APR-30T


APT34T

- High Intelligibility
- High Efficiency, Double Re-entrant
- Talk Back Capability
- Indoor and Outdoor Installation
- Water-Sealed Construction
- Omni-Purpose Mounting
- Vandalism — Resistant Accessories
- UL Approved Models Available

Model	Power Continuous* Equalized**	Frequency Hz	Sound Level ****	Dispersion	Impedance	Dimensions	Application Advantages
AP-15 AP-15C/Beige AP-15T AP-15TC/Beige AP-15-4	15 Watts* 20 Watts**	275-14,000	121 dB	110°	8 Ohms 8 Ohms † † 4 Ohms	8"W x 8"H x 9"D	Medium Power Paging Talkback/Intercom Signalling Voice & Music
APF-15 APF-15T	15 Watts* 20 Watts**	475-14,000	121 dB	180° 360°***	8 Ohms †	3 7/16"H/7" Dia. 5 3/16"H/7" Dia.	Flush Mount
AP-30 AP-30C/Beige AP-30T AP-30TC/Beige AP-30-45 AP-30T-25	30 Watts* 40 Watts**	225-14,000	125 dB	100°	8 Ohms 8 Ohms †† †† 45 Ohms †††	10"W x 9½"H x 10½"D	High Power Paging Talkback/Intercom Signalling Voice & Music
APC-30 APC-30T	30 Watts* 40 Watts**	250-14,000	123 dB	120° x 60°	8 Ohms †	14"W x 6"H x 12¾"D	High Power Wide Angle Sound Dispersion
APR-30T	30 Watts* 40 Watts**	300-14,000	112 dB	360°	†	13" Dia. x 11¾"H	Overhead Installation 360° radial dispersion
APT-34T	30 Watts* 40 Watts**	225-14,000	121 dB (Each Horn)	100° (Each Horn)	†	16½" Lg x 9¾" Dia.	For Bi-Directional Corridor or Hallway Use

"COMPRESSION DRIVERS/PROJECTOR HORNS"

PD-30T

PD-5VH

PD-5VT/PD-60/PD-60T

BIA-100

CJ-46

DR-32, 42
DR-54, 72

Horn Model	BIA-100	CJ-46	DR-32	DR-42	DR-54	DR-72
Low End Cut-Off	180 Hz.	115 Hz.	190 Hz.	140 Hz.	115 Hz.	85 Hz.
Dispersion	130° x 60°	120° x 60°	95°	85°	75°	65°
Air Column Length	2.8′	4½′	2½′	3½′	4½′	6½′
Bell Size	21½" x 10½"	23" x 13"	16½" Dia.	21" Dia.	26" Dia.	31" Dia.
Horn Length	19¼"	17"	12½"	16"	19"	28"

Driver Model	SD70	PD-20	PD-4V	PD-30T	PD-5VH	PD-5VT	PD-60	PD-60T
Power (Continuous)*	58 Watts	20 Watts	30 Watts	30 Watts	40 Watts	40 Watts	60 Watts	60 Watts
Power (Equalized)**	100 Watts	25 Watts	50 Watts	40 Watts	60 Watts	60 Watts	100 Watts	100 Watts
Frequency Hz.	375-8000	120-7000	85-7000	120-14,000	80-12,000	80-12,000	70-12,000	70-12,000
Sound Level****	112 dB	125 dB	128 dB	126 dB	131 dB	131 dB	136 dB	136 dB
Impedance	11 Ohms	16 Ohms	16 Ohms	††	16 Ohms	††	16 Ohms	††

* Integrated Speech & Music.
** Limited to frequencies above horn cutoff.
*** Depending upon installation plane.
**** 4′ on axis, rated power — Drivers with 6′ air column.

† Built-in 70V and 25V transformers w/screwdriver selectable wattage taps.
†† Built-in 70V transformers.
††† Built-in 25V transformers.

NOTE: Specifications are subject to change without advance notice.

Microphone Stands and Accessories

"LOUDSPEAKER/EQUIPMENT STANDS & ADAPTORS"

Portable, professional quality SS Series loudspeaker/equipment stands are designed for stability and ease of operation. They provide elevated support for all professional, monitor and PA speakers, stage and lighting effects, amplifiers and other control equipment. All models are constructed of durable chrome plated tube assemblies and charcoal finish steel legs to assure long lasting indoor or outdoor use. For maximum flexibility, the SS Series loudspeaker/equipment stands will accommodate light/medium (SS-40 Series) and heavy-duty (SS-70 Series) load requirements. Designed for use with matching Atlas Sound top adaptors (not included).

SS40/SS-40X

SS-40/SS-70
Fixed height, single tube models (1⅜" tube) for light/medium (SS-40) and heavy duty (SS-70). Ideal for field applications dictating stability where variable height is not required.

SS-40X/SS-70X
Same as SS-40/SS-70, but with extendable upper (1") tube assemblies. Unique tube positioning assembly assures rapid and secure positioning of extendable tube height.

SS-70/SS-70X

	SS-40	SS-40X	SS-70	SS-70X
Height:	48"	48"-81"	55"	55"-120"
Weight:	12 Lbs.	16 Lbs.	14 Lbs.	22 Lbs.

SSA-1/1A
Universal "X" base equipment-mount adaptor for maximum stability. Surface mounting to accommodate a wide variety of equipment sizes and configurations. Model SSA-1 for 1" dia. extendable upper tube of SS-40X and SS-70X. Model SSA-1A for 1⅜" dia. tubing of SS-40 and SS-70.

SSA-1/1A

SSA-2
Bar-mount adaptor for SS-40X/SS-70X variable height stand bases. Used with loudspeaker cabinets, monitor consolettes, portable lighting equipment (Atlas Sound SS-2 top adaptor).

SSA-2

SSA-3
Surface-mount adaptor for SS-40/SS-70 fixed height bases. Recommended for amplifier equipment support and mounting of "C" Series column speakers (Atlas Sound CSS-100 top adaptor).

SSA-3

SSA-4
High-stability platform-mount adaptor for SS-40X/SS-70X variable height stands. Designed to support professional loudspeaker systems, control monitor equipment.

SSA-4

SSA-5
Recessed flange adaptor for use with all Atlas Sound stand bases, eliminates transportation and storage space requirements of surface-mounted adaptors. For air-tight pre-installation within loudspeaker and equipment cabinets. Precision machined, die cast dual inside diameter of 1" and 1⅜".

SSA-5

"DESK STANDS"

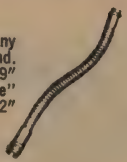
DS-5
General Purpose Desk Stand. Charcoal finish base 4" H., Chrome tube. 2 lbs.

DS-7
Adjustable height desk stand. Grip-action clutch, 6" dia. Charcoal base. 8" to 13" H., 3 lbs.

DS-14
Contemporary styled professional stand. Textured base. 3" H., Chrome tube. 2 lbs.

"ACCESSORIES"

GN and GNS
Flexible Goosenecks to extend any standard ⅝"-27 thread stand. Choice of 6" GN-6; 13" GN-13; 19" GN-19. .338" I.D. — "Slimline" models GNS-6, or GNS-13. .212" I.D.

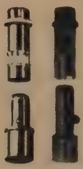


CH-1B
Cable hanger for convenient neat storage of microphone cable on all standard tube size models. Chrome finish.

VM-1
Shock-Mount Accessory to help reduce microphone pick-up of extemperaneous mechanical vibrations. Fits all standard ⅝"-27 thread stands and microphone holders. 4¾" H., Chrome finish.

CO-1B
Versatile Connect-On Attachment allowing use of a second microphone at any height of a standard ⅝" or ⅞" tube dia. floor stand. Use with gooseneck for close instrument miking. Charcoal finish.

SO-1B
LO-2B
Snap-on/Lock-on Accessories, for instantaneous fastening or disconnect of microphone holder or boom attachment. Use with standard ⅝"-27 thread stand.

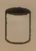


TM-1
Twin Mount. For horizontal extension and installation of two or three microphones on any standard ⅝"-27 thread floor stand or podium top. 8¾" wide. Chrome finish.

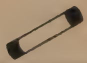
"ADAPTORS"

AD-4B
¾" long, ⅝"-27 male running thread.

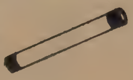
AD-5B
⅝"-27 female to ⅝"-27 female, coupling.



AD-7B
3" long tube ⅝"-27 male each end.

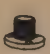


AD-8B
6" long tube ⅝"-27 male each end.

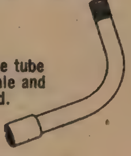


AD-11B
Flange, ⅝"-27 female. Base diameter 1¾".

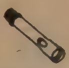
AD-12B
Flange, ⅝"-27 male. Base holes on 1¼" mounting centers.



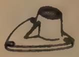
AD-14B
Right angle tube ⅝"-27 male and female end.



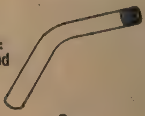
AD-15B
Cable feed-thru adaptor: ⅝"-27 male and female end.



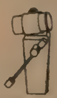
AD-18B
Heavy duty triangular flange. ⅝"-27 female.



AD-19B
45° angle tube: ⅝"-27 male and female end.



PB-K
Designer-Styled Microphone Boom Attachment Swivel for use with ⅝" dia. tubing.

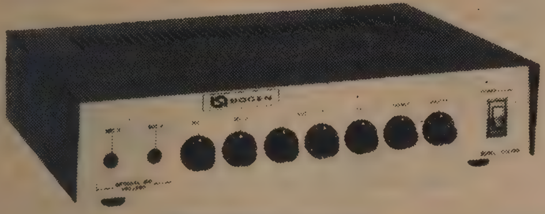


MSC-K
Blister packaged service parts kit for all ⅞" clutch assembly stands. Includes clutch, lock rings, inserts.

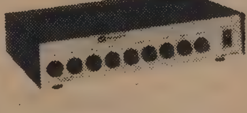
MS-20K
Blister packaged service parts kit for MS-20 and MS-25 Microphone Stands. Includes adaptor, clutch, lock rings, inserts.

BOGEN® PA AND UTILITY SOLID STATE AMPLIFIERS

CHS-B SERIES



CHS-100B PA Amplifier
(CHS-35B and CHS-60B Similar in Appearance)



CHS-100B With PMM-2

CHS-B Series amplifiers combine advanced operating features with conservative design, utilizing integrated circuits and silicon transistors and diodes. They offer outstanding performance at moderate cost. Simultaneous mixing of four input signals; two microphones and two high-level (aux.) signals. Built-in microphone input transformers for low impedance, balanced microphones; convertible to high-impedance inputs by means of jumpers. An optional accessory, PMM-2B, designed to mount on the front panel, provides two additional low-impedance, balanced microphone channels. Professional 3-pin female XLR microphone connectors. Built-in phantom supply for condenser microphones. One microphone channel has built-in circuitry for precedence or remote control. Choice of 35, 60 or 100 watt models. Outputs for tape recorder, booster amplifier, balanced constant voltage (25 V and 70 V), plus low-impedance output transformer taps. Two similar amplifiers' outputs can be combined into one load for effective doubling of available power. Lighted power switch. In and out connectors for acoustic equalizer or reverb unit. Protection against circuit damage due to accidental shorting or disconnecting of loud speaker lines. Thermal breaker protects output transistors. UL and CSA listings pending. A variety of accessories available for extremely flexible operation.

CHS-100B 100 WATT PA AMPLIFIER

Power Output: 100 watts rms at 1 kHz. **Frequency Response:** 70 Hz to 12 kHz ±2 dB. **Sensitivity (For Full Output):** Aux., 0.15 V; Hi-Z Mic., 3 mV; Lo-Z Mic. (balanced or unbalanced), 0.3 mV. **Hum and Noise:** Mic., −60 dB; Aux., −70 dB below rated output. **Inputs:** 2 Lo-Z balanced mic. inputs (200 ohms), each convertible to Hi-Z or condenser microphones; 2 Aux. inputs (500K ohms); Reverb (20K ohms); provisions for WMT-1. **Outputs:** 4 and 16 ohm outputs, 25 VCT (6.25 ohms) and 70 V (49 ohms) balanced lines; Tap (640 mV at 1000 ohms), Tape/booster (5 V at 10K ohms); WMT-1 output (500/600 ohms); Reverb output (650 mV at 1000 ohms). **Input/Output Connectors:** Microphones, professional 3-pin female audio connectors (Cannon XLR-313 or Switchcraft C3F Series); Auxiliary high impedance, standard phono jacks; screw terminals; tape/booster jack; provision for WMT-1. **Controls:** Mic. 1, Mic. 2, Aux. 1, Aux. 2, Master Volume, Bass, Treble, Power switch (lighted). **Tone Control Action:** Bass, 50 Hz +9 to −12 dB; Treble, 12 kHz +9 to −12 dB. **Semiconductors:** 13 silicon transistors, 1 zener diode, 7 silicon diodes and 2 integrated circuits. **Power Consumption:** 120 VAC, 60 Hz, 2.5 A, 300 W. **Line Fusing:** Resettable circuit breaker; 2.5 A hold. **Size:** 16½″ W. x 3¾″ H. x 12″ D. **Shipping Weight:** 19½ lbs.

Bogen Model CHS-100B PA Amplifier—Net Each... **$364.95**
Zone 2: **383.20**

CHS-60B 60 WATT PA AMPLIFIER

Power Output: 60 watts rms at 1 kHz. **Frequency Response:** 70 Hz to 12 kHz ±2 dB. **Sensitivity (For Full Output):** Aux., 0.15 V; Hi-Z Mic., 3 mV; Lo-Z Mic. (balanced or unbalanced), 0.3 mV. **Hum and Noise:** Mic., −60 dB; Aux., −70 dB below rated output. **Inputs:** 2 Lo-Z balanced Mic. inputs (200 ohms), each convertible to Hi-Z or condenser microphones; 2 Aux. (500K ohms); Reverb (20K ohms); provision for WMT-1 **Outputs:** 8 and 16 ohm outputs, 25 VCT (10.4 ohms) and 70 V (82 ohms) balanced lines; Tape (650 mV at 1000 ohms); Tape/booster (5 V at 10K ohms); WMT-1 output (500/600 ohms); Reverb (650 mV at 1000 ohms). **Input/Output Connectors:** Mic., professional 3-pin female audio connectors (Cannon XLR-313 or Switchcraft C3F Series); Aux,, high-impedance, standard phone jacks; screw terminals; tape/booster jack; provision for WMT-1. **Controls:** Mic. 1, Mic. 2, Aux. 1, Aux. 2, Master Volume, Bass, Treble, Power switch (lighted). **Tone Control Action:** Bass, 50 Hz +9 dB to −12 dB; Treble, 12 kHz +9 dB to −12 dB. **Semiconductors:** 11 silicon transistors, 1 zener diode, 7 silicon diodes and 2 integrated circuits. **Power Consumption:** 120 VAC, 60 Hz, 1.6 A, 192 W. **Line Fusing:** Resettable circuit breaker; 1.65 A hold. **Size:** 16½″ W. x 3¾″ H. x 12″ D. **Shipping Weight:** 16 lbs.

Bogen Model CHS-60B PA Amplifier—Net Each.... **$314.70**
Zone 2: **330.45**

CHS-35B 35 WATT AMPLIFIER

Power Output: 35 watts rms at 1 kHz. **Frequency Response:** 70 Hz to 12 kHz ±2 dB. **Sensitivity (For Full Output):** Aux., 0.15 V; Hi-Z Mic., 3 mV; Lo-Z Mic. (balanced or unbalanced), 0.3 mV. **Hum and Noise:** Mic., −60 dB; Aux., −70 dB below rated output. **Inputs:** 2 Lo-Z balanced Mic. inputs (200 ohms), each convertible to Hi-Z or condenser microphones; 2 Aux. (500K ohms); Reverb (20K ohms); provision for WMT-1. **Outputs:** 8 and 16 ohms, 25 VCT (18 ohms) and 70 V (140 ohms) balanced lines; Tape (650 mV at 1000 ohms); Tape/booster (5 V at 10K ohms); WMT-1 output (500/600 ohms); Reverb (650 mV at 1000 ohms). **Input/Output Connectors:** Mic., professional 3-pin female audio connectors (Cannon XLR-313 or Switchcraft C3F Series); Aux., high impedance, standard phone jacks; screw terminals; tape/booster jack; provision for WMT-1. **Controls:** Mic. 1, Mic. 2, Aux. 1, Aux. 2, Master Volume, Bass, Treble, Power switch (lighted). **Tone Control Action:** Bass, 50 Hz +9 dB to −12 dB; Treble, 12 kHz +9 dB to −12 dB. **Semiconductors:** 11 silicon transistors, 1 zener diode, 7 silicon diodes and 2 integrated circuits. **Power Consumption:** 120 VAC, 60 Hz, 0.86 A. 103 W. **Line Fusing:** Resettable circuit breaker; .93 A hold. **Size:** 16½″ W. x 3¾″ H. x 12″ D. **Shipping Weight:** 14 lbs.

Bogen Model CHS-35B PA Amplifier—Net Each.... **$264.75**
Zone 2: **278.00**

ACCESSORIES FOR CHS-B SERIES AMPLIFIERS

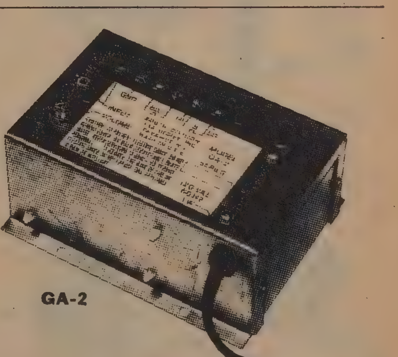
Bogen Model	Description	Net Each, Zone 1	Net Each, Zone 2
PMM-2B	Preamplifier module (panel mounting)	**$72.00**	**$75.60**
RPK-44	Rack mounting kit	**10.50**	**11.00**
CON-2	Microphone connector (male)	**4.50**	**4.75**
RVC-2B	Remote controller	**25.50**	**26.80**
WMT-1	500/600 ohm line transformer	**15.75**	**16.55**
LPC-4A	Phono top (3-speed)	**75.00**	**78.75**
TG-4B	Multiple tone generator	**83.25**	**87.40**

GA SERIES

TWO-WATT UTILITY AMPLIFIER

A rugged, reliable amplifier to feed "music-on-hold" to a telephone line, as well as driving remote telephone lines, multiple headphones or a monitor speaker. Wide frequency response and low hum and noise contribute to excellent performance. A screwdriver-adjustable volume control is provided. **Power Output at 8 Ohms:** 2 watts at less than 2% distortion; 1.5 watts at 0.2% distortion. **Output Impedances:** 8 and 600 ohms, usable simultaneously. **Level Across Balanced 600 Ohm Output:** +8 dBm (+2 Volts). **Frequency Response:** 50 Hz to 20 kHz, +0 dB, =2.5 dB. **Input Sensitivity for Full Output:** 50 mV. **Input Impedance:** 100K Ohms. **Hum and Noise:** −72 dB below rated output. **Power Consumption:** 4 watts, 120 Volts, 60 Hz. **Size:** 5½″ x 4⅛″ x 2¼″. **Weight:** 1 lb., 10 ozs.

Bogen Model GA-2 Utility Amplifier—Net Each.............................. **$52.50**
Zone 2: **55.15**

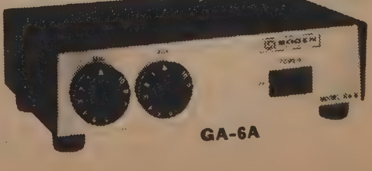


GA-2

SIX-WATT UTILITY AMPLIFIER

A versatile, six-watt amplifier with inputs for both low-impedance microphone (balanced or unbalanced) and a program source such as a tape deck or tuner. The inputs can be mixed. Wide frequency response and low distortion assure high quality performance. **Power Output:** 6 watts, rms. **Frequency Response:** 30 to 15,000 Hz, ±2 dB. **Total Harmonic Distortion:** Less than 2% at rated output. **Power Bandwidth:** 45 to 15,000 Hz. **Sensitivity:** Mic, 0.3 mV; Aux, 0.2 V. **Hum and Noise:** Mic, −45 dB; Aux, −70 dB. **Output Impedance/Voltage:** 8 ohms, 25 V and 70 V. **Tone Control:** Treble boost at 10 kHz, 9 dB; treble cut at 10 kHz, 9 dB; internally selectable. **Terminations:** Outputs and Mic, screw terminals; Aux, RCA phono jack. **Power Consumption:** 120 VAC, 60 Hz, 16 watts. **Size:** 8½″ w. x 6″ d. x 2⅝″ h. **Weight:** 5 lbs.

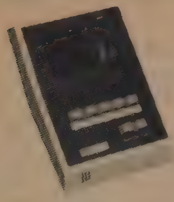
Bogen Model GA-6A Utility Amplifier—Net Each.............................. **$83.25**
Zone 2: **87.40**



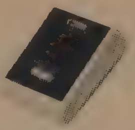
GA-6A

BOGEN®

INTERCOMMUNICATION SYSTEMS, POWER MEGAPHONES



IE-5



RE-1

IE-10

IH-8

SERIES "IE" SOLID STATE INTERCOMS

- **All-master systems or single master/multiple remotes.**
- **Combine private and non-private (hands free) remotes as you require.**
- **Choice of masters with 5 or 10 selector buttons.**
- **Tie into paging system for direct paging from intercom masters.**
- **100% trunkage for multiple simultaneous conversations between different pairs of masters.**

Choose either a Single Master/Multiple Remote System (up to 10 remotes); an All-Master system in which each station can call up to 10 others selectively; or a modified All-Master system with a "common" remote or "dedicated" remotes for hands-free reply (remotes cannot originate calls). Remotes can be either private (cannot be monitored) or non-private (operated hands-free).

MASTER STATIONS

Five or ten selector buttons. White cabinet, forest green panel. Use TBR-4A accessory relay with separate PA system to permit high-volume paging and reception of hands-free reply from two PA loudspeakers. **Controls:** Push-to-Talk; Dictate Lock; Volume; Push-Push Selector Switches (to permit conference calls) with station ID strips. **Impedance:** 16 ohms. **Size:** 5½" w. x 3⅜" h. x 8½" d.; desk or wall mount. **Shipping Weight:** 3 lbs.

Bogen Model IE-5—Five selector buttons. Net Each. . **$78.00** (Zone 2: **$81.90**)

Bogen Model IE-10—Ten selector buttons. Net Ea. . **$97.50** (Zone 2: **$102.40**)

Bogen Model PRS-20—Power Supply (one required for each system). Net Each. . . . . **$52.50** (Zone 2: **$55.15**)

REMOTE STATIONS

Bogen Model RE-1 can call master in single master systems and function privately or nonprivately (hands-free) as desired. Incorporates call and privacy buttons. 16 ohms. Styled to match masters. Slots for optional wall mounting. **Size:** 4½" w. x 2¼" h. x 6⅜" d. **Shipping Weight:** 7 lbs.

Bogen Model RE-1—Net Each. . . . . **$27.00** (Zone 2: **$28.35**)

Bogen No.	Description	Shpg. Wt., Lbs.	Net Each	
			Zone 1	Zone 2
IH-8	Indoor/outdoor remote; weather proof; 8 ohm speaker	4	**$34.95**	**$36.70**
WSB8TS2A	Wall mounting remote; 8 ohm speaker	4	**30.00**	**31.50**

PM-5

PM-12S

PM-16S

MEGAPHONES

• Choice of 5, 12 or 16 watts of power • Built-in emergency siren (12- and 16-watt models) • Dynamic microphone for fidelity and durability • High reliability, solid state amplifier • Rugged, impact-proof horn • Volume control conveniently located for one-hand operation • Compact, lightweight, with shoulder strap for easy handling and mobility • Standard batteries (not included); easy replacement.

Whether addressing a group, coaching a sports event or controlling an emergency, you'll find the Bogen megaphones powerful, dependable, easy to use, and outstanding in value. Each unit is a compact, portable sound system, designed to project voice (or siren, in models so equipped) over a long range with exceptional clarity. Powered by standard batteries. Ruggedly built, yet light enough for extended use without fatigue. The 12- and 16-watt models incorporate a piercing emergency siren which is instantly switched on or off. The 16-watt model has a detachable, anti-howling microphone.

5-WATT MEGAPHONE

Ideal for cheerleaders, sport coaches, tour guides, etc. Economical Model PM-5 is sturdily built for long life, yet light enough for continuous hand-held operation. Incorporates a high-intelligibility, dynamic microphone. Solid-state amplifier. Trigger switch. Volume control conveniently located for one-hand operation. Equipped with shoulder strap. **Amplifier Output:** 5 watts (rated); 8 watts (max.). **Range:** Approx. 250 yards (230 meters). **Power Source:** 8 "AA" cells required. **Battery Life (Continuous Operation):** Approx. 6 hours. **Power Consumption (At Rated Output):** Less than 6 watts. **Microphone Type:** Dynamic. **Size:** 7½" horn diameter x 12⅜" overall length. **Weight:** Approx. 2 lbs., 6 oz.

Bogen Model PM-5 Megaphone—Net Each. **$60.00**
Zone 2: **63.00**

12-WATT MEGAPHONE

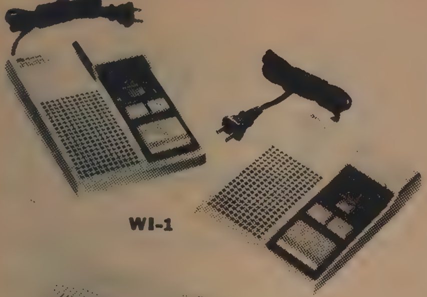
Perfect for addressing a meeting or for life guards, fire fighters, etc. Model PM-12S provides 12 watts of clear audio power. Ruggedly constructed. Balanced design and light weight allow prolonged use without fatigue. Incorporates built-in dynamic microphone, emergency siren, solid-state amplifier and trigger switch. Siren and volume controls conveniently located for one-hand operation. Equipped with shoulder strap. **Amplifier Output:** 12 watts (rated); 18 watts (max.). **Range:** Approx. 720 yards (658 meters). **Power Source:** 6 "C" cells required. **Battery Life (Continuous Use):** Approx. 10 hours (voice); 30 minutes (siren). **Power Consumption (At Rated Output):** Less than 16 watts (voice); less than 25 watts (siren). **Microphone Type:** Dynamic. **Size:** 8½" horn diameter x 14⅞" overall length. **Weight:** Approx. 4 lbs., 2 ozs.

Bogen Model PM-12S Megaphone—Net Each. **$90.00**
Zone 2: **94.50**

16-WATT MEGAPHONE

Powerful enough for large meetings, directing traffic over a wide area or talking between boat and shore, the heavy-duty Model PM-16S delivers 16 watts of audio power where you need it. Features a detachable, hand-held microphone of noise-cancelling, dynamic design with switch, volume control and coiled, 4-ft. cord. Model PM-16S may be hung from the shoulder strap or placed on a surface for extended use; two built-in feet stabilize the megaphone when placed on a surface. A high-powered emergency siren with separate pushbutton is also incorporated. **Power Output:** 16 watts (rated); 22 watts (max.). **Range:** Approx. 850 yards (775 meters). **Power Source:** 6 "C" cells required. **Battery Life (Continuous Use):** Approx. 8 hours (voice); 30 minutes (siren). **Power Consumption (At Rated Output):** Less than 25 watts (voice); less than 40 watts (siren). **Microphone Type:** Anti-feedback, dynamic. **Size:** 8⅜" horn diameter x 13⅝" overall length. **Weight:** Approx. 4 lbs., 15 oz.

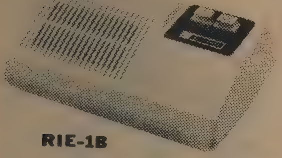
Bogen Model PM-16S Megaphone—Net Each. **$120.00**
Zone 2: **126.00**

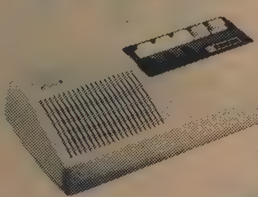

WI-1

MODELS WI-1B AND WI-3B FM WIRELESS INTERCOMS

Any building having two or more AC outlets on the same power line fed from same distribution transformer and of same phase can utilize the Bogen WI-1B or WI-3B wireless intercoms; no wiring is required. The Model WI-1B offers one talk channel; Model WI-3B has three talk channels, permitting up to three simultaneous conversations. Either model may be used in a system with as many stations as desired—each station is a master. The talk button may be locked down, permitting use as a baby sitter. Stations are 5⅛" x 1¾" x 7½", 2 lbs.

Bogen Model WI-1B Wireless Intercom—Net per pair	Zone 1:	**$64.50**
	Zone 2:	**67.75**
Bogen Model WI-1B/S Individual Station—Net Each	Zone 1:	**32.30**
	Zone 2:	**33.90**
Bogen Model WI-3B Wireless Intercom—Net per pair	Zone 1:	**79.55**
	Zone 2:	**83.50**
Bogen Model WI-3B/S Indivudual Station—Net Each	Zone 1:	**39.80**
	Zone 2:	**41.75**


RIE-1B

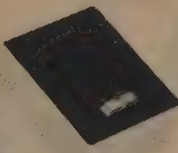

IE-4B

4-STATION SOLID-STATE INTERCOM WITH ANNUNCIATOR AND TONE CALL-IN

Model IE-4B master station can be used with up to 3 **Model RIE-1B** remotes, RF-1 or RF-2 speakers or STB-8 horns. Volume control on master station. Reliable, attractive and economical. Features annunciator and call-in from RIE-1B remote or RF-2 to master; annunciator remains lit for 15 seconds. Privacy switch on remote unit allows remote to operate hands-free in "non-private" mode; in "private" mode, remote cannot be monitored by master. Tone call-in from master to remote. Master station operates from 110 VAC, with adapter (supplied), or from four "C" cells. 2C two-conductor cable installs system.

Bogen Model	Description	Net Each,	
		Zone 1	Zone 2
IE-4B	Intercom Master Station	$66.00	$69.30
RIE-1B	Remote Station	21.00	22.05
RF-1†	Outdoor Speaker	25.50	26.80
RF-2†	Outdoor speaker with call-in button	30.00	31.50
RBR-F	Flush-mounting Box for RF-1	9.00	9.45
RBR-S	Surface-mounting Box for RF-1	16.50	17.35
2C	Two-conductor Cable (unshielded)	6.40*	6.75*

*Net per 100 ft. †Requires 10 μF, 25 volt non-polarized capacitor.


VIR-1

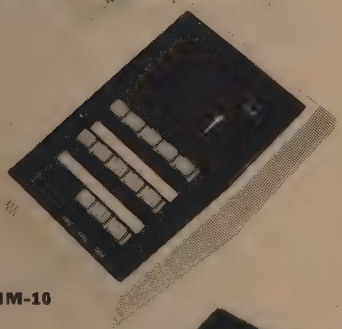
VIM-5

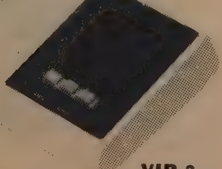
SERIES VIM INTERCOM SYSTEM

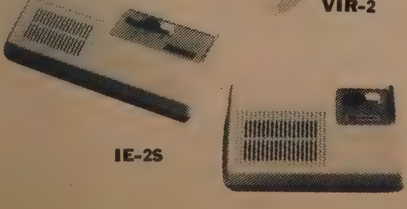
Up to 11 master stations or 1 master with 10 remotes or complete intermix of masters and remotes. Private conversation. Other stations cannot listen or interrupt. Privacy switch prevents monitoring, except when released for hands-free response. Single channel. Master features front-panel volume control, press-to-talk button, call button, privacy button, LED indicator for remote call, discreet tone annunciation of incoming call, in-use indicator. VIR-1 and VIR-2 remotes have call-to-master and privacy switches; VIS-1 has call switch. System can tie into existing paging system for direct paging from masters. Desk top or wall mounting. **Size:** Master, 5½" w. x 3¼" h. x 8⅜" d); remote, 4½" w. x 2⅜" h. x 6⅜" d. **Weight:** Master, 2½ lbs; remote, 0.7 lbs.

Bogen Model	Description	Net Each,	
		Zone 1	Zone 2
VIM-5	Five Button Master	$105.00	$110.25
VIM-10	Ten Button Master	121.45	127.50
VIR-1	Remote (can call one master)	18.00	18.90
VIR-2	Remote (call either of two masters)	24.00	25.20
VIS-1	Remote (Wall-mounting. Call one Master)	33.00	34.65
PRS-20	Power Supply, 1 for each system	52.50	55.15
RF-1†	Outdoor Speaker	25.50	26.80
RF-2†	Outdoor speaker with button for connection to doorbell	30.00	31.50
IH-8	Outdoor Horn	34.95	36.70
RBR-F	Flush-mounting Box for RF-1, RF-2	9.00	9.45
RBR-S	Surface-mounting Box for RF-1, RF-2	16.50	17.35

†Requires 10 μF, 25 volt, non-polarized capacitor.


VIM-10


VIR-2


IE-2S

MODEL IE-2S TWO-STATION SYSTEM

An economical, two-way, two-station intercommunication system. When either station initiates a call, the other receives a discreet tone signal. When the called party answers, conversation proceeds clearly and naturally. The remote station has call and privacy buttons; in "private" mode, it cannot be monitored by the master. When called, the user selects "non-private" mode and converses hands-free. For continuous monitoring, unit can be left in "non-private" mode. Master station is powered by 4 "C" cells or with 120 VAC plug-in adapter Model PRS-30 and may be wall mounted or placed on a desk or table.

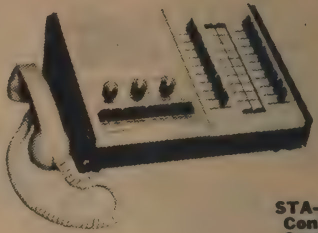
Bogen Model IE-2S System—Blister packed with master, remote, and 50 feet of cable. Shpg. Wt. 4½ lbs. Net Each	Zone 1:	**$52.50**
	Zone 2:	**55.15**
Bogen Model PRS-30 AC Adapter—Net Each	Zone 1:	**$6.70**
	Zone 2:	**7.05**

BOGEN® INTERCOMMUNICATION SYSTEMS

SERIES STA-A SOLID-STATE INTERCOM/PAGING/PROGRAM SYSTEMS

Series STA-A systems are expandable, high-powered, modern communication systems, designed for intercom, paging and program distribution from a control station to multiple remote stations. Control station serves up to 20 remote stations; system easily expands to 40 or 60 remotes by utilizing optional add-on modules; SW-20A for STA-20A control station; SW-20AL for STA-20AL control station. Optional booster amplifier permits operation with more than 60 remotes. Twenty-switch control stations, STA-20A and STA-20AL are furnished with separate PR-STA power supplies. STA-20AL is equipped with an electronic chime and annunciator lights. Chime sounds at control station to indicate incoming call; annunciator lights, on front panel, identify calling station. Optional independent telephone system (for STA-20AL only) permits control station to talk to remote stations without interrupting program to other remotes; requires no additional wiring; only an HS-12 handset for the control station, an HS-14 handset at each desired remote station, and a single PRS-4A power supply for all. Up to 6 phones may participate in a conference call. Optional handset, HS-10, for the control station, for use in noisy locations or to avoid being overheard. Three-position switches for easy selection of remotes; select "intercom," "program" or "off." High-reliability solid-state design. Input for low-impedance, balanced microphone. Two inputs for AM/FM tuner, tape deck or phono player. Five push-button function switches select Microphone, Program, Intercom, All-Zone and Talk/Listen. All zone provides instant paging or program to all areas. Three separate volume controls for incoming calls, outgoing calls and program. Optional SST-1A module provides time signals or shift-change signals for transmission to remote stations. 35 watts output on 25-volt balanced line; booster amplifiers available for increasing output power to 125 watts. Handsome, durable case of beige with cocoa-brown trim. **Size:** Control station, 14″ w. x 5¼″ h. x 10½″ d.; power supply, 7½″ w. x 3½″ h. x 5½″ d.; add-on module, 6¾″ w. x 5¼″ h. x 10½″ d. **Weight:** STA-20A' 14 lbs.; STA-20AL, 16 lbs.; power supply, 7 lbs.; SW-20A, 6 lbs.; SW-20AL, 7 lbs.

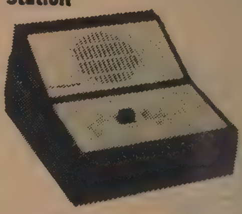
Bogen Model	Description	Net Each, Zone 1	Net Each, Zone 2
STA-20A/PRSTA	20-Station Paging & Intercom Master	$787.50	$ 826.90
STA-20AL/PRSTA	20-Station Paging & Intercom Master with Chime and Annunciator Lights	975.00	1023.75
SW-20A	20-Station Add-On Module (For STA-20A)	375.00	393.75
SW-20AL	20-Station Add-On Module with Annunciator Lights (For STA-20AL)	487.50	511.90
SST-1A	Single-Circuit Time-Shift-Change Module	180.00	189.00
JBX	Junction Box	18.00	18.90
CA-10	Annunciator Call-In Switch; Flush Mtg.	9.00	9.45
CA-11	Privacy Annunciator Call-In Switch; Flush Mtg.	10.50	11.00
CA-13	Call-In Switch; Flush Mtg.	6.00	6.30
WSB8-TS2A	8″ Reproducer; Wall Mtg.	30.00	31.50
SPT-30	Weatherproof Speaker; 30 W w/Transformer	71.65	75.25
SPT-15	Weatherproof Speaker; 15 W w/Transformer	60.00	63.00
HS-10	Handset for Control Station	112.50	118.15
HS-12	Handset for Control Station	120.00	126.00
HS-14	Handset for Remote Station	60.00	63.00
PRS-4A	Power Supply for HS-12 and HS-14	75.00	78.75
BB-8450	1-pr. Shielded Cable; 100-ft., 2 lbs.	8.25	8.65
BB-8763	3-Cond., 2-Shld., 1-Unshld., 100-ft., 4 lbs.	18.00	18.90



STA-20AL Control Station with optional Handset

SW-20A Add-on Unit

RIS-1A Remote Station



MODEL PI-10 POWER INTERCOM

- **Master plus up to 10 remotes**
- **All-call switch for instant paging to all areas**
- **10 watt solid-state amplifier**
- **25-volt, constant-voltage remote lines**
- **Tone and visual annunciation of calls**
- **Separate incoming and outgoing volume controls**
- **Microphone and music inputs**
- **High-quality voice reproduction**

The flexibility of the Model PI-10 Power Intercom permits connecting from one to ten wall, desk, or outdoor remotes. A music source may also be connected. The PI-10 master has an "all-call" switch for fast paging regardless of the position of individual station keys. 25-volt constant voltage output lines eliminate impedance matching calculations when connecting remotes. Calls from remotes to the master are announced by a soft electronic tone and a visual station annunciator that remains on until the master answers the call. Calls to remotes are announced by the tone. Remote Model PIR-1 may function either privately or non-privately. A choice of other remotes is available for areas requiring higher output and/or hands-free operation.

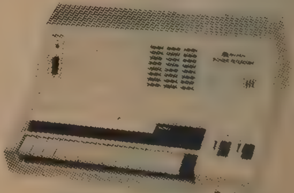
Bogen Model PI-10 Master—13″ x 4½″ x 10″. Shpg. wt., 9 lbs.
Net Each..Zone 1: **$337.50**
Zone 2: **354.40**

Bogen Model PIR-1 Remote—Built-in call and privacy switches. 5⅜″ x 2½″ x 7⅜″. Shpg. wt., 1 lb. Net Each........................Zone 1: **$23.70**
Zone 2: **24.90**

Bogen Model WSB8-TS-2A Wall Mounting Remote—Eight-inch speaker with 2 watt, 25 volt transformer. Enclosure has simulated walnut vinyl cover with black grille cloth. **Size:** 9½″ w. x 11⅝″ h. x 6⅝″ top and 4⅛″ base. **Shpg. Wt.:** 5 lbs.
Net Each..Zone 1: **$30.00**
Zone 2: **31.50**

Bogen Model SPT-15 Outdoor/Indoor Remote—Provides up to 10 watts power handling capability for outdoor or high-noise-level areas. All-metal construction with adjustable mounting bracket. **Size:** 8″ x 8″ x 9″. **Shpg. Wt.:** 5 lbs.
Net Each..Zone 1: **$60.00**
Zone 2: **63.00**

Bogen Model CA-14 Call-In Annunciator Switch—Provides call initiation capability for Models WSB8-TS-2A and SPT-15. When switch is actuated, master receives tone and visual indication. Switch mounts flush in standard single-gang outlet box. Net Each........................Zone 1: **$ 7.50**
Zone 2: **7.90**



PI-10

PIR-1

BOGEN® TELEPHONE INTERCOMMUNICATION SYSTEMS

BOGEN-PHONES

Reach your parties when you need them—fast, dependably, economically. Bogen-Phones are extremely flexible telephone intercom systems without a costly central exchange. No central switching, no dialing, no delay. Designed for highest reliability. Feature electret microphone for superior speech quality. Mount easily on the wall, or use on desk. Phone housings are high-impact injection molded plastic in white with forest green trim. Model TPA-10 Phone Page Adapter permits tie-in to public address system for paging from TIS or TIM phones. Model TBR-10 adapter permits zone paging with talkback.

SERIES TIS—ECONOMICAL COMMON-LINE SYSTEM

Series TIS Bogen-Phones provide a common talk line for dependable, economical intercom among up to 13 stations or more, provided that twelve station call buttons will suffice for any individual. An LED "busy" indicator on each TIS phone shows when the system is in use. When you push the button for the station you want, an electronic tone announces the call. For a conference call, you may press up to four buttons. When the handset is lifted at the station(s) you are calling, you are in communication. TIS phones feature an electret microphone, which affords superior speech quality and reliability compared to conventional types. Amplification circuitry is completely electronic. Each phone (except TIS-1) is equipped with a junction box for simple installation and a convenient directory form on which to list the numbers of other individuals in the system. A single power supply (PRS-10) serves the entire system. The phones may be mounted on a wall or placed on a table or desk top. Each phone incorporates a dedicated pushbutton for paging. Optional accessories include the paging feature, a loud-ring relay for high-noise locations and a 10-foot cord for stations requiring freedom to move about while talking.

PAGING SYSTEM—UP TO 60 STATIONS

If your application does not require selective calling, you may use up to 60 TIS-1 phones with a PA system and TPA-10 paging adapter. In this arrangement, calling is by voice paging through the PA speakers. When a page is made, the paged individual picks up any other TIS-1 in the system and is connected automatically to the calling party.

WIRING INFORMATION

The interconnecting cable between TIS phones should consist of unshielded insulated conductors totalling 4 more than the number of phones in the system. If paging will be used, one additional conductor is required between phones (a total of 5 plus the number of phones). Use of TPA-10 requires 3 conductors to a TIS junction box; TBR-10, 6 conductors.

SERIES TIM—MULTICHANNEL SYSTEM

TIM systems feature 100% trunkage, which permits different pairs of phones to be in conversation at the same time. For example, in a system with 24 phones, as many as twelve conversations can take place simultaneously. Pressing a single button sounds an electronic tone at the TIM phone you are calling; when the other person lifts the handset, you are connected. For a three-way conference call, you may press two call buttons simultaneously. Up to 25 stations may be used in a system in which everyone can selectively call everyone else. If you need a larger system, Series TIM is virtually unlimited as to the number of phones that may be used, provided that facilities to call 24 others will suffice for any individual. TIM phones are equipped with a junction box for simple installation and a convenient directory form on which to list the numbers of other individuals in the system. A single PRS-10 power supply serves the entire system. The phones may be mounted on a wall or placed on a table or desk top. Each phone incorporates a dedicated pushbutton for paging. Optional accessories include the paging feature, a loud-ring relay for high-noise locations and a 10-foot cord for stations requiring freedom to move about while talking.

TIM BOGEN-PHONES

Bogen Model TIM-6—Provides 6 call buttons, paging button, number directory and junction box. Has a 4½′ snarl-proof cord. Measures 9¼″ x 3¾″ x 4⅛″.
Net Each.......................... **$75.60** (Zone 2: $79.40)

Bogen Model TIM-12—Same as TIM-6, except with twelve call buttons and slide-out directory.
Net Each.......................... **$84.60** (Zone 2: $88.85)

Bogen Model TIM-24—Same as TIM-12, except with A/B group button which enables each call button to call either of two different stations, so that TIM-24 can call 24 stations selectively. Net Each.......................... **$100.80** (Zone 2: $105.85)

PRS-10 POWER SUPPLY— ONE PER TIS OR TIM SYSTEM

Bogen Model PRS-10 Power Supply—Can be plugged into any standard outlet box (120 VAC, 50/60 Hz) and connected to a convenient or nearest Bogen-Phone junction box. Measures 8⅞″ x 4″ x 2¾″. Net Each.......... **$58.30** (Zone 2: $61.20)

TIS-12

TIS BOGEN-PHONES

Bogen Model TIS-1—Provides one call button, one paging button and LED busy light. Has 4½′ snarl-proof cord. Measures 9¼″ x 3¾″ x 4⅛″. Net Each.............. **$50.40** (Zone 2: $53.00)

Bogen Model TIS-4—Same as TIS-1, except with four call buttons, number directory and junction box.
Net Each.......................... **$60.45** (Zone 2: $63.45)

Bogen Model TIS-8—Same as TIS-4, except with eight call buttons. Net Each.................. **$70.20** (Zone 2: $73.70)

Bogen Model TIS-12—Same as TIS-8, except with twelve call buttons. Net Each .... **$75.60** (Zone 2: $79.40)

OPTIONAL ACCESSORIES—SERIES TIS OR TIM

General Paging: The TPA-10 Paging Adapter permits a simple tie-in to your PA system to provide paging from any phone in your system. The person paged merely picks up the nearest phone to answer. Also provides an input for a music source (automatically silenced during paging) with a separate volume control. Measures 4⅝″ x 4½″ x 2″.
Bogen Model TPA-10 Paging Adapter—
Net Each.......................... **$48.00** (Zone 2: $50.40)

Zone Paging with Talkback: The TBR-10 Paging/Talkback Adapter may be used with a PA amplifier and one or two loudspeakers to provide area paging from TIS or TIM phones and hands-free reply from the loudspeakers. Several zones may be served in a similar manner, using a separate TBR-10 adapter, amplifier and speakers for each zone. Each TBR-10 requires dedication of a station call button on each phone connected to it. Measures 4″ x 4″ x 2″.
Bogen Model TBR-10 Paging/Talkback Adapter—
Net Each.......................... **$66.00** (Zone 2: $69.30)

Loud-Ring Relay: May be used with an externally powered bell and any TIS or TIM phone to sound an extra-loud tone, particularly useful in noisy locations.
Bogen Model RY-20 Loud-Ring Relay—
Net Each.......................... **$23.40** (Zone 2: $24.60)

Handset Cord: The HC-10 Handset Cord provides a 10-foot coiled cord for any TIS or TIM phone.
Bogen Model HC-10 Handset Cord—
Net Each.............................. **$7.05** (Zone 2: $7.40)

WIRING INFORMATION

The interconnecting cable between TIM phones should consist of unshielded insulated conductors totalling 2 more than the total number of stations in the system. If the paging will be used, one additional conductor is required between phones (number of phones plus three). Use of TPA-10 requires 3 conductors to a TIM junction box; TBR-10, 4 conductors.

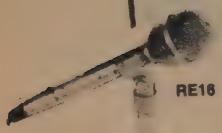
INTERCOM CABLE

Bogen No.	Description	Shpg. Wt. Lbs./100′	Net/100′	
			Zone 1	Zone 2
2C	2-cond. unshld	1¼	$ 6.40	$ 6.75
3SC	3-cond. unshld	2	7.50	7.95
7SC	7-cond. unshld	3	19.50	20.50
12SC	12-cond. unshld	6	30.00	31.50
16SC	16-cond. unshld	8	39.00	40.95
20SC	20-cond. unshld	9	52.50	55.15
30SC	30-cond. unshld	15	78.00	81.90
BB-8450	1 pr twisted, shld	2	8.25	8.65
BB-8763	1 pr shld, 1-cond. unshld	4	18.00	18.90
14015	1 pr twisted unshld	2	7.50	7.90

Electro-Voice® INC PROFESSIONAL MICROPHONES

RE20

RE15


RE16

RE10

RE18

RE55

DO54

RE50

DO56/DO56L

PROFESSIONAL CARDIOID DYNAMIC MICROPHONES

VARIABLE-D® TYPES

Model RE20 Wide-Range Cardioid—Rugged, extremely wide range, high quality unit for exacting studio recording as well as broadcast and PA application. Uniform cardioid polar pattern; off-axis response virtually identical to on-axis, maximum rejection designed for boom or stand use. Excellent transient response. Case machined from solid steel bar stock. Unit has built-in shock mounting and electrical shielding. Handles extremely high sound input: stable characteristics. Built-in pop filter, bass tilt-down switch, strong and positive mounting clamp. Non-reflecting fawn beige Micomatte finish. Response: 45-18,000 Hz. Impedance: 50, 100, 150 ohms selectable. Output: −57 dB. With Switchcraft A3M connector; 18-ft. two-cond. shielded broadcast cable; and A3F connector at mike end. Clamp fits ⅝"-27 threaded pipe. Size: 8½" lg. × 2⅛" max. dia. Net Weight, 1lb., 10 oz. Each........ **$445.00**

Model RE15 Super Cardioid—For exacting professional applications whether on boom, stand, or hand-held. Super cardioid pattern with maximum rejection at 150° off-axis; maintains essential cardioid pattern at other positions. Response is virtually identical at any position around mike; no off-axis coloration. With "bass tilt" switch. Rugged case and inner construction. Fawn beige Micomatte finish. Response: 80-15,000 Hz. Output: −56 dB. Lo-Z. Size: 6$^{9}/_{16}$" lg. × 1⅜" dia.; shank ¾" dia. Comes with metal case, 310A clamp and 18-ft. 2-conductor shielded broadcast cable with Switchcraft A3F connector. Each........ **$256.75**

Model RE16 Super Cardiod—Similar to Model RE15, but with integral blast and pop filter around head of mike. For close-up vocal use; virtually eliminates breath noises. Strong metal screen protects against damage. Specifications same as RE15. Size: 7⅜" lg. × 1⅞" dia.; shank ¾" dia. Each........ **$269.50**

Model RE10 Super Cardiod—Similar to Model RE15 in design and construction, but for slightly less demanding applications. Fawn beige Micomatte finish. Response: 80-13,000 Hz. Impedance: Low, Output: −56 dB. Size: 6¾" lg. × 1⅜" dia.; shank ¾" dia. With metal case, 310A clamp and 18-ft. 2-conductor shielded broadcast cable with Switchcraft A3 connector. Each........ **$166.50**

Model RE11 Super Cardioid—Same as Model RE10, but has blast and pop filter around head of mike. Designed for close-up vocal use, virtually eliminating breath noises. Metal screen prevents damage in use. Specifications same as RE10. Size: 7⅛" lg. × 1⅞" dia.; shank ¾" dia. Weight, 8 oz. Each...... **$179.50**

Model RE18 Super Cardioid—Shock-isolated dynamic microphone designed for the most exacting professional use. The transmission of hand, stand, and mechanically generated lectern noises is sharply reduced, making the RE18 ideally suited for broadcasting and high-quality sound reinforcement. Frequency Response: 80-15,000 Hz. Impedance: 150 ohms. Output Level: −57 dB. EIA Sensitivity Rating: −150 dB. Hum Pickup Level: −125 dBm. Size: 7" × 0.75". Finish: Silver tone beige. Weight: 8 ozs. Each........ **$279.25**

SINGLE-D TYPES

Model DS35—Professional entertainer's dynamic Single-D cardioid microphone created especially for stage and night club use. Single-D design emphasizes low frequencies when used "close-up". Perfect for professional performer applications where proximity effect or bass boost is desired. For musical pickup, the variable bass response can be utilized to achieve clean bass pickup at distances of 12 inches or more. Acoustalloy diaphragm with laminated volumetrc dome provides exceptionally wide linear response at all angles of incidence for extremely high gain before feedback. Integral blast filter allows close talking or singing without excessive "popping" and also keeps diaphragm free of dust and magnetic particles. Head subassembly is shock-mounted by a pneumatic shock absorber which isolates the transducer assembly from mechanical noises. Built-in Switchcraft A3F connector. Machined steel casing. Frequency Response: 60-17,000 Hz. Output Level: −58 dB. Impedance: 150 ohms balanced. EIA Sensitivity Rating: −148 dB. With 312A stand adapter clamp, 15-foot 2-conductor shielded, synthetic rubber-jacketed cable. Size, 7¼" lg. × 1⅞" max. dia.; shank dia., ¾". Net Weight, 9 ounces. Each........ **$150.00**

PROFESSIONAL OMNIDIRECTIONAL MICROPHONES

Model RE55 Wide-Range Dynamic—Extremely wide-range, flat response for the most exacting professional applications. May be used as secondary lab standard. Versatile in recording, broadcast, or sound reinforcement of symphony orchestra, organ, piano, etc. Also can be comfortably hand-held by performers. Response: 40-20,000 Hz. Impedance: Low. Output: −55 dB. Low sensitivity to mechanical shock. Acoustalloy diaphragm. Steel case in fawn beige Micomatte finish. Has 18-ft. two-conductor shielded broadcast-type cable with Switchcraft A3F connector. Model 310A clamp and metal carrying case provided. Size: 10½" lg. overall × 1¼" dia.; shank ¾" dia. Net Weight, 8½ oz., less cable. Each........ **$259.00**

Model DO54—An omnidirectional microphone designed for demanding professional applications where a compact, wide-range microphone is needed. It is ideal for boom or stand mounting in recording and broadcast use, and is also excellent for close-up, hand held use in stage and interview situations. The non-reflecting fawn beige Micromatte finish eliminates hot spots for on-camera use. Suitable for calibration as a secondary standard in acoustic measurements where information below 50 Hz is unimportant. Impedance: 150 ohms, balanced. Frequency Response: 50-18,000 Hz. Output Level: −58 dB. EIA Sensitivity Rating: −149 dB. Supplied with 15 foot two-conductor cable and Switchcraft A3F connector, stand clamp and protective metal carrying case. Size: 5.75" long × 1.12" max. dia.; shank ¾" dia. Each........ **$146.00**

Model RE50 Noiseless Hand and Stand Dynamic—Same ruggedness and electrical characteristics of 635A. Widely used for instrumental broadcast and recording. Extremely low susceptibility to mechanical shock, handling and cord noise, or breath pops due to unique double case design separated by rubber isolating mounting. With 15-ft. cable, Switchcraft A3M connector and 300 clamp. Size: 7¾" lg. × 1$^{15}/_{16}$" max. dia.; shank 1" dia. Net Weight: 9½ oz. Each........ **$146.50**

Model DO56/DO56L—A specially shock-isolated omnidirectional dynamic microphone created for the most exacting professional applications. All handling noises, clothing noises and even cord shock and vibration are isolated from the microphone element so effectively that almost no vibration is amplified. Frequency Response: 80 to 18,000 Hz. Impedance: 150 ohms. Output Level: −61 dB. EIA Sensitivity: −155 dB. Finish: Silver tone beige. Size: DO56, 6.25' × 1.45"; DO56L, 11.5" × 1.45".

Model DO56—Each........ **$125.00**
Model DO56L—Each........ **141.00**

Electro-Voice® INC

PROFESSIONAL MICROPHONES

DL42

PROFESSIONAL—BOOM TYPE AND SPECIAL APPLICATIONS

Model DL42—Combines characteristics of hyper-cardioid and distributed front opening designs. Essentially uniform characteristics at frequencies up to 500 Hz; highly directional over balance of range. Working distance at least 2-3 times that of conventional types. Shock-mount design reduces mechanical shock transference and wind noise problems. Ideal for boom use, fish pole use, or handheld applications. Response: 50-12,000 Hz. Acoustalloy® diaphragm. Impedance: 150 ohms. Output: −50 dB. Aluminum and steel case with nonreflecting beige finish. Built-in Switchcraft A3M connector. Special coil cord from microphone connector to shock mount supplied. Screw-on handle supplied for handheld applications. Length, 16¾"; max. diameter 3¾", with windscreen. Each...... **$494.00**

Model 667A—Continuously Variable-D® cardioid designed specifically for boom use in broadcasting and recording. Extremely smooth cardioid pattern for maximum reduction of ambient noise and reverberation. Integral windscreen eliminates noise from motion of boom-mounted microphone through the air. Built-in equalizer provides choice of 6 different response curves. Acoustalloy® diaphragm. Response: 40-10,000 Hz. Output: −51 dB. Impedance: 50, 150 or 250 ohms, internally selectable. Size: 9⅝" lg. × 3¼" dia. Non-reflecting gray finished aluminum case. With 2′ mechanical isolation cable and 20′ 3-conductor shielded broadcast type cable. Complete with shock isolating boom mount. Each...... **$498.75**

CS15

PROFESSIONAL CARDIOID ELECTRET CONDENSER MICROPHONES

System C—Contains every module you need to create every system you need. Four heads provide omnidirectional, cardioid, hypercardioid or Cardiline® response patterns. Every pattern you will ever need, and with performance you'll appreciate. Two sets of preamps—one for hand-held and stand use; the other, smaller, preamp for boom or fishpole use. Plus a 10 dB head pad and battery and AC power supplies. Versatile components that permit you to assemble every condenser microphone you'll ever need. You can make up your own system or choose from several factory-prepared systems. Each includes the microphone head, electronics, windscreen, clamp or shock mount, and handsome, foam-lined protective case.

Electro-Voice System CO15P Omnidirectional—Each...... **$283.25**

Electro-Voice System CS15P Cardioid—Each...... **$263.00**

Electro-Voice System CH15S Hypercardioid—Each...... **$507.80**

Electro-Voice System CL42S Cardiline—Each...... **$660.00**

Electro-Voice Model CH15E Hypercardioid Head—Response, 55 Hz to 13.5 kHz. Output Level, -40 dB. Each...... **$185.50**

Electro-Voice Model CO15E Omnidirectional Head—Response, 20 Hz to 20 kHz. Output Level, −49 dB. Each...... **$114.50**

Electro-Voice Model CL42E Hypercardioid Head—Response, 90 Hz to 12 kHz. Output Level, -33 dB. Each...... **$311.00**

Electro-Voice Model CS15E Single-D Cardioid Head—Response, 40 Hz to 18 kHz Output Level, -45 dB. Each...... **$94.25**

CO90P

CO94

Model CO90P—A professional electret condenser microphone system. The microphone has an attached tie clasp bar for use as a lavalier. The phantom power module clips to the performer's belt with the belt clip supplied. The small physical size of the CO90P is aesthetically pleasing for on-camera use. Frequency Response: 40 to 15,000 Hz. Impedance: 150 ohms. Output Level: −57 dB. Brass microphone case and steel power module case, both with fawn beige matte finish. Each...... **$176.50**

Model CO90E—Same as CO90P, except it is not supplied with the phantom power module, but is designed for adaption to many special applications. Impedance: Approximately 7000 ohms. Operating Voltage: 2-30 V at 150 microamperes.

Model CO90E—Each...... **$98.00**

Model CO94—A miniature lavalier electret designed to attach to the user's clothing with a tie clasp. The power supply/buffer module attaches to the user's belt. The CO94 may be powered from a 9 V battery in the power supply module, from an external battery, or from a phantom source. Frequency Response: 80 to 15,000 Hz. Impedance: 150 ohms. Polar Pattern: Omnidirectional. Output Level: −45 dB. EIA Sensitivity: −136 dB. Brass microphone case with fawn beige matte finish; power module is steel with black plastic cover. Each...... **$225.00**

RE85

PROFESSIONAL LAVALIER MICROPHONES

Model RE85 Lavalier—New double case design with internal element suspended in compliant rubber sharply reduces friction and shock noice; hard, smooth case finish avoids friction noise; smooth cable, isolated from inner capsule, prevents cable noise pick-up. Acoustalloy diaphragm. Lo-Z. Integral 30′ two-conductor shielded cable; non-reflective champagne finish. Response: 90-10,000 Hz in chest-lavalier position. Output: −61 dB. Size: 2⅝" l. × $^{15}/_{16}$" dia. With neck cord and tie clasp assemblies, belt clip and zipper pouch. Each...... **$139.75**

Model RE51—Lightweight (under ½ oz.) dynamic microphone clips onto eyeglass frame or special headband (furnished) for hands-free use without lavalier noise. Constant distance from mouth assures unchanging voice pickup; noise reduction is comparable to noise-canceling mikes. Comes with 3½" l. and 4½" l. mike tubes; transducer is ½" dia. × 1" l. Nonreflecting black finish. Small low-drain, battery-powered transistorized amplifier clips to belt, has on/off switch, cough button, battery test lamp, cable connector. Screwdriver slot level adjustment. Lo-Z. Response: 80-10,000 Hz. Output level: −56 dB max. Each...... **$217.00**

C085A

Model CO85A Miniature Electret—An omnidirectional electret condenser microphone designed to be worn as a tie tac, shirt button, pin, brooch, etc. Lightweight (0.1 oz.) and small (0.41" dia. × 0.27" high), the Model CO85 is unobtrusive. The electronics package for the microphone also serves as the retention device behind the user's clothing. Contact between the two units is accomplished by the stainless steel coaxial probe of the microphone. The battery housing is normally worn on the belt. Complete with No. 385 windscreen, belt clip, tie-clip adapter and cable dress wire clip. Frequency Response: 70-16,000 Hz. Impedance: 150 ohms nominal, balanced. Output Level: −56 dB, EIA Sensitivity Rating: −152 dB. Each...... **$191.00**

Model 512 Connector Adapter Kit—Provides more flexibility by allowing the user to connect and disconnect the CO85 battery housing from the normally "hard wired" connection to the rest of the unit. Consists of two Lemo connectors and other accessories needed. Each...... **$37.65**

Electro-Voice® INC

COMMUNICATIONS MICROPHONES, ACCESSORIES

COMMUNICATIONS AND PAGING MICROPHONES

Model 621 H, L Dynamic—Suitable for both communications and paging. Wide response makes it ideal for installations such as council and board meeting halls. Press-to-talk switch in base is DPDT with contacts for external relay. Response: 70-10,000 Hz. Output: −57 dB. Impedance: 150 ohm or Hi-Z specify. Size: 9.69" high, 4.5" wide, 4.81" deep. Weight: 1 lb. 13 ozs. Cable: 7' long, 5-cond. Each.......................... **$142.50**

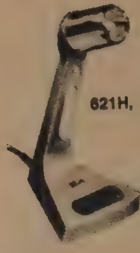
Model 622L—Noise-cancelling version of Model 621. Available in low impedance only. Each.... **$150.00**

HAND HELD TYPES

Model 602FH Dynamic Mobile—Differential, close talking, noise cancelling. Response: 200-5,000 Hz. Output: −60 dB. Has gray high impact case, press-to-talk switch, 5-ft coiled cord. Specify Hi-Z or balanced Lo-Z. Size, 2½" × 1¾" × 4". Net Wt., 10 oz. Each.......................... **$113.00**

Model 600EH Dynamic Mobile—Improved design for reliability. Easy-action switch shorts mike in "off"; eliminates electrical noise and closes relay circuit when depressed. Response: 100-7,000 Hz matched for high intelligiblity. Output: −55 dB. Hi-Z or balanced Lo-Z, specify. Gray finish: with hang-up bracket and 5-ft. coiled cord. Size, 2½" × 1½" × 4". Wt., 10 oz. Each.......................... **$97.50**

Model 625ST Dynamic—Differential, close-talking, noise-cancelling handset. Designed for high articulation speech transmission under high ambient noise conditions. Ideal for two-way radio and industrial applications. Output Level: −60 dB. Impedance: Microphone, 150 ohms; Receiver, 150 ohms. Case: Black plastic. Cable: 5-conductor coiled cord, 5 feet extended. Switch: Press-to-talk (non-shorting) and relay switch. Each.......................... **$275.00**


621H, L

602FH

625ST

645TR

ELECTRICAL ACCESSORIES

ATTENUATOR

Model 380—Attenuator for microphone line. 10 dB attenuation. Each.......................... **$54.00**

MICROPHONE ON-OFF SWITCH/CONNECTOR ASSEMBLY

Model 381—Designed for professional broadcast, musical entertainment, recording, and PA microphones that do not incorporate an on-off switch. Allows the professional and non-professional alike a greater versatility in the use of high quality microphones. Noiseless on-off switch connector assembly plugs directly into any microphone that has a standard broadcast connector. Switch connector is prewired to an 18-foot length of standard two-conductor, shielded, broadcast cable. Connector mates with Switchcraft A3M connector or equivalent. Size, 3⅞" lg. × ¾" diameter. Each.......................... **$56.00**

380

381

MICROPHONE CABLES

Model 520—Fifteen-foot cable with ¼" phone plug on equipment end. Each.......................... **$46.00**

Model 521—Twenty-five-foot professional type cable with professional type 3-pin connectors on both ends. Each.......................... **$52.50**

MICROPHONE MATCHING TRANSFORMER

Model 502C—Low to high impedance "plug-in" line transformer. Response: 20-15,000 Hz. ±2 dB. Switchcraft A3F input connector, A3M and MC1 output connectors. Size, ¾" dia. × 3¼" long. Each.......................... **$50.00**

Model 502CP—Same as Model 502C, but with standard ¼" phone plug and A3M output connectors. Size, ¾" dia. × 4⅜" long. Each.......................... **$50.00**

502C

502CP

513A

HIGH PASS FILTER

Model 513A—Mike line hi-pass filter attenuates unwanted noise and reverberation components below 100 Hz. Maximum attenuation occurs near 60 Hz (over 40 dB) reducing pickup of acoustic AC machinery noise. Designed for low impedance mikes. Size, 1⅛" dia. × 6" long. Weight, 10 oz. Each.......................... **$153.00**

SUSPENSION SHOCK MOUNTS

Model 307—Suspension mount adapts any ¾" shank mike for boom use. Can also be stand mounted. Use with Models RE10, RE11, RE15, RE16, RE55, 635A, 626, 627A, 631, etc.; will accommodate Model 314 windscreen. Each.......................... **$45.15**

Model 309—Suspension shock mount for use with Model RE20 on boom or stand. Each.......................... **$61.35**

309

GENERAL PURPOSE DYNAMIC CARDIOID LINE MICROPHONE

Model 644 Sound Spot®—Combination cardioid and distributed front-opening mike has better than 2½ times the working distance of pressure types with virtually no change in response. Extremely high rejection of noise from sides and rear, reducing reverberation and feedback. Narrow front angle of acceptance for best isolation. Very low response to wind noise or shock. Response: 40-10,000 Hz. Output: −53 dB. High pressure diecast zinc case, satin chrome finish; ¾" dia. aluminum tube. Head dia., 2$^{5}/_{16}$", length, 16". Cable 15-ft. Net Weight, 2 lbs., 9 oz. Each.......................... **$383.00**

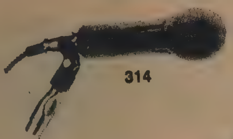
644

GENERAL PURPOSE ELECTRET CARDIOID MICROPHONE

Model 1776A—A single-D, electret, condenser microphone with extremely rugged construction. Designed for the professional user in professional recording, serious home recording and high quality sound reinforcement. Frequency Response: 60-18,000 Hz. Impedance: 150 ohms, balanced. Output Level: −50 dB. EIA Sensitivity Rating: −144 dB. Dynamic Range: 100 dB. Equipped with on-off switch. Requires internal 4.5V carbon or alkaline battery (not supplied). Comes complete with 15 foot cable and No. 301 stand adapter. Has built-in pop filter.
Model 1776A—Each.......................... **$208.00**
Model 1776AP—With plug. Each.......................... **$216.50**

Model 1777A—Same features and styling as Model 1776A, except Model 1777A can be phantom powered or powered by internal battery. On-off switch is recessed and controls battery circuit only. Each.... **$250.00**

1776A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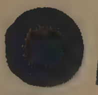
315A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360

335A

524A

355A

WINDSCREENS

Model 351 Windscreen—Acoustifoam® windscreen reduces breath pops and wind whistle without altering frequency response. Stretches easily over microphone and adjusts tightly into position. Protects EV mikes 670, 670V, 1710, 1711, 1750 and 1751. Charcoal gray. Each........ $13.00

Model 314 Windscreen—Acoustifoam; with zipper-type opening. For RE10, RE15 mikes; or 307 shock mount. Each........ $14.55

Model 314E—Head portion only of Model 314. Acoustifoam For 635A mike; or pop filter (around head) or RE10 and RE15. Each........ $10.50

Model 315A Windscreen—Acoustifoam; for Model CS15 mike. Each........ $7.80

Model 335A Windscreen—Acoustifoam; for 630, 634 and 641 mikes. Each........ $29.00

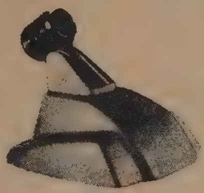
Model 337 Windscreen—For use with Models 626, 627 and 627A microphones. Each........ $14.00

Model 355A Windscreen—Designed to reduce or eliminate wind noise. Made of Acoustifoam, will not alter frequency response or polar characteristics. Protects against mechanical shock damage and pickup of dust and magnetic particles. Use with Models RE55, DO54, 655C, 654A, 636 and 623. Gray color. Size: 9″ × 3¼″. Net Wt., ½ oz. Each........ $13.00

Model 360 Windscreen—For use with Model 660 microphone. Each........ $23.00

Model 368 Windscreen—Fits over integral windscreen on 667A or 668 mikes for outdoor use, or over 308 or 309 shock mounts. Used with 642 and RE20 mikes. Each........ $110.00

Model 524A Windscreen—Acoustifoam; for Model 666 mike. Each........ $23.00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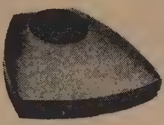
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MICROPHONE STANDS

Model 411 Floor and Desk Mike Mount—"Mike Mouse" mount provides long distance pickup from desk top or stage while keeping microphone almost completely out of view. Shock-mounts the mike from mechanically transmitted vibrations through the floor. Permits insertion of Models RE10, RE15, or 635A microphones. Unobtrusive Acoustifoam® in charcoal gray. 4″ w. × 2″ d. × 8⅛″ long. Each........ $27.00

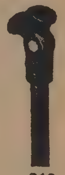
Model 400 Desk Stand—Heavy steel stand finished in non-reflecting gray. Adapter furnished adapts stand to all Electro-Voice microphones and clamps fitted with switch studs. Each........ $29.50

Model 422 Desk Stand—Interchangeable rubber shock mounts to accept ¾″ or 1″ stand clamp. Size: 4¼″ w. × 4½″ d. × ⅞″ h. Each........ $32.00

Model 423A Desk Stand—Sturdy, smartly styled, round diecast base, 5⅛″ diameter. Rests firmly on rubber base buttons. Threaded ⅝″-27. With 5″ stem riser. Non-reflecting gray. Each........ $26.00

Model 428 Touch-To-Talk Stand—Lever-type DPDT switch for relay operation or microphone on-off—closes or opens instantly or locks in "talk" position. Switch lever with locking button. 7″ × 5⅛″ base diameter. Fits standard ⅝″-27 thread. Each........ $76.50

342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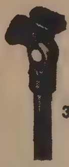

301

STAND CLAMPS, ADAPTERS

Model 301 Mike Clamp—Lightweight adapter for 1″ mikes, cut back for snap-in, snap-out mtg. Mounts to ⅝″-27 desk or floor-stand. Black Each........ $13.00

Model 301A—As above, but gray, like professional mikes. Each........ $13.00

Model 310—Similar to 301, but for ¾″ mikes and slide instead of snap mtg. Black. Each.... $13.00

Model 310A—As above, but gray, like professional mikes. Each........ $13.00

Model 312—Similar to 301, but for ¾″ mikes. Black. Each........ $13.00

Model 312A—As above, but gray, like professional mikes. Each........ $13.00

Model 358 Mike Clamp—To mount mikes with tapered case, such as 660 or 671. Each. $13.00

Model 340 Security Stud Adapter—Allows mounting of any cylindrical microphone with ¾-inch case diameter on a microphone stand with ⅝-inch 27 threads. Security stud adapter mounts microphone in stud fashion so it may not be removed easily from stand. Microphone may be secured to positively resist attempts at theft and vandalism. Pressure cast zinc and polypropylene construction. Locking devices include conical headed Allen screw and two Allen screw/pressure shoes. Size: 91″ × 2.8″ × 1.63″. Wt., 2.61 oz. Each........ $29.00

Model 342 Stud-Mount Adapter—Converts any ¾-inch diameter microphone, with A3F connector, for stud-mount use with integral on/off switch. Microphone plugs directly into the standard broadcast connector of the adapter and is secured in place by tightening the headless recessed hex screw at base of mounting tube. Metal shoe holds microphone securely in place. The mike and studmount adapter are locked into a solid unit so long as the screw is set. Accidental separation of microphone from stand is eliminated and theft is discouraged. The stud-mount adapter may be threaded onto a standard ⅝-inch 27 thread microphone stand in the normal manner. Mike cable plugs into adapter. Accepts any standard 3-pin broadcast style connector. Pressure cast zinc construction, Switchcraft A3M insert connector. Locking device consists of hex screw and pressure shoe. Size: 4.1″ × 1.7″ × 1.63″. Wt., 8.64 oz. Each........ $33.50

CARRYING CASES

Model 456 Carrying Case—Holds single mike and cable. Universal foam insert for any mike up to 4″ × 8″. Each........ $29.50

Scotch® Audio/Video Recording Tapes

CASSETTES FOR CASSETTE RECORDERS

Professional quality recording cassettes for every recording application feature special oxide backing for superior cassette recording that can be favorably compared to open-reel at 7 1/2 ips. Magnetic coating is of oxide particle, completely different from and superior to standard low noise oxides. Cassettes have precision built housing designed for long term, trouble-free use. Packed 20 per case. Lifetime warranty.

DYNARANGE® CASSETTES

High output, low noise ferric oxide formulation provides clean sound reproduction and minimum head wear. Sound quality remains high, even after multiple uses.

Scotch Number	Recording Time Each Side	Base	Case Qty.	List Price	Net Ea. Full Cases
S-C-45 Album	22.5 min.	.5 mil	20	$2.99	$2.24
S-C-60 Album	30 min.	.5 mil	20	3.29	2.47
S-C-90 Album	45 min.	.3 mil	20	4.79	3.59
S-C-120 Album	60 min.	.25 mil	20	6.59	4.94

HIGHLANDER® LOW NOISE CASSETTES

Economical cassettes feature tensilized polyester backing. Available in standard cassette album box, carded or non-carded.

H-C-45	22.5 min.	.5 mil	20	$1.89	$1.42
H-C-60	30 min.	.5 mil	20	2.19	1.64
H-C-90	45 min.	.3 mil	20	3.29	2.47
H-C-120	60 min.	.25 mil	20	4.79	3.59

3-IN-A-BAG HIGHLANDER LOW NOISE CASSETTES

Same cassette as listed above, but for even greater economy, packed 3 in a plastic bag, 20 bags per case.

Scotch Number	Recording Time, Each Cassette	Base	Case Qty.	List Price	Net (Per Bag) Full Cases
H-C-45 3/B	45 min.	.5 mil	20X3	$4.59	$3.44
H-C-60 3/B	60 min.	.5 mil	20X3	4.99	3.74
H-C-90 3/B	90 min.	.3 mil	20X3	7.29	5.47

MASTER SERIES CASSETTES

Two totally different oxide formulations housed in precision Master cassette shells. Each formulation is designed for use at a specific bias/EQ switch position for the finest sound reproduction. Also available with storage box.

Scotch Number	Time Each Side	Base	Case Qty.	List Price	Net Ea. Full Cases
MASTER I NORMAL SWITCH POSITION					
MI-C-60 Album	30 min.	.5 mil	20	$4.49	$3.37
MI-C-90 Album	45 min.	.5 mil	20	5.79	4.34
MASTER II CHROME SWITCH POSITION					
MII-C-60 Album	30 min.	.5 mil	20	$4.79	$3.59
MII-C-90 Album	45 min.	.5 mil	20	5.99	4.49

METAFINE-PURE METAL TAPE

ME-C-46 Album	23 min.	20	$7.19	$4.49	$5.39
ME-C-60 Album	30 min.	20	7.99	4.99	5.99
ME-C-90 Album	45 min.	20	10.29	6.43	7.72

WORD PROCESSING TAPE

Scotch Number	Time Each Side	Base	Case Qty.	List Price	Net Ea. Full Cases
IRC-30	15 min.	.5 mil	20	$1.89	$1.42
IRC-60	30 min.	.5 mil	20	2.29	1.72
IRC-90	45 min.	.3 mil	20	3.19	2.39

MINICASSETTE

RD-30/2 Card	30 min.	.5 mil	10	$8.79	$6.59

LOW NOISE/DYNARANGE® TAPE

"Dynarange" low-noise tape is an excellent choice for professionals who demand the advantage of a low noise formulation as well as for beginners who desire realism, fidelity and sensitivity in their recordings. Special low-noise oxide coating provides improved signal-to-noise ratio of 4 to 6 dB over standard tapes. Wound on plastic reel with leader attached. Each reel supplied in cardboard storage box. Packed 10 per case.

Scotch Number	Total Recording Time*	Reel Size	Base	Case Qty.	List Price	Net Ea. Full Cases
211-5R-600	30 min.	5"	1.5 mil	10	$4.09	$3.07
211-7R-1200	60 min.	7"	1.5 mil	10	6.29	4.72
212-5R-900	45 min.	5"	1.0 mil	10	4.89	3.67
212-7R-1800	90 min.	7"	1.0 mil	10	8.39	6.29

*Recording both directions at 7 1/2 ips. †Tensilized polyester.

206 AND 207 OPEN REEL TAPES

Both tapes are 2 dB more sensitive across the recording spectrum than standard low-noise tapes, allowing for greater dynamic range and truer fidelity. Type 206 features high output/low noise ferric oxide on 1.5 mil polyester backing. Type 207 features the same oxide formulation on 1.0 mil backing.

Scotch Number	Recording Time	Reel Size	Base	Case Qty.	List Price	Net Ea. Full Cases
206-7R-1200'	60 min.	7"	1.5 mil	10	$7.99	$5.99
207-7R-1800'	90 min.	7"	1.0 mil	10	9.99	7.49

BETA FORMAT VIDEO CASSETTES

Scotch Number	Recording Time	List Price	Net Each, Lots of 1-6 Cases	Net Each, Lots of 7 Cases -Up
L-250	60	$14.95	$ 9.27	$ 8.97
L-500	120	18.95	11.75	11.37
L-750	180	23.95	14.85	14.37

VHS FORMAT VIDEO CASSETTES

Scotch Number	Recording Time	List Price	Net Each, Lots of 1-5 Cases	Net Each, Lots of 6 Cases -Up
T-30	30 min.	$18.45	$10.70	$10.33
T-60	60 min.	21.75	12.62	12.18
T-120	120 min.	27.95	16.21	15.65
T-160	160 min.	37.75	23.40	22.65

VIDEO HEADCLEANERS

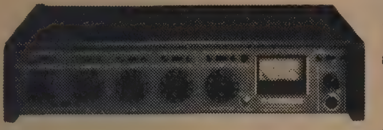
Scotch Number	Type	List Price	Net Each, Lots of 1-6 Cases	Net Each, Lots of 7 Cases -Up
BH-CR	BETA	$27.95	$20.96	$18.73
VH-CR	VHS	28.95	21.71	19.40

We stock the full line of Scotch Brand Audio care accessories. Prices upon request.

Quantity Buyers . . . Ask for Special Price Quotation!

SHURE® AUDIO EQUIPMENT, MICROPHONE ACCESSORIES

M267 MICROPHONE MIXER



Professional microphone mixer features peak program limiter, simplex (phantom) power, built-in battery pack with automatic switchover, LED peak indicator, headphone level control, and automatic muting circuit. **Frequency Response:** ±2 dB from 30 to 20,000 Hz. **Equivalent Input Hum and Noise:** −127 dBV. **Distortion:** Less than 0.35% THD from 30 to 20,000 Hz at +15 dBm output; less than 0.5% IM distortion up to +15 dBm output. **Input Clipping Level:** Microphone, −32 dBV to −5 dBV (depending on control setting); Line, +20 dBV; Mix Bus, −38 dBV. **Output Clipping Level:** Microphone, −32 dBV; Line, +18 dBV. **Simplex Power:** 30 VDC open circuit, 3.3 K series resistance. **Operating Power:** 105–125 VAC, 50/60 Hz; three 9 V alkaline batteries provide approx. 20 hours of operation. **Size:** $2\frac{31}{32}$″ h. x $12\frac{5}{32}$″ w. x 9″ d. **Weight:** 5 lbs., 2 ozs.

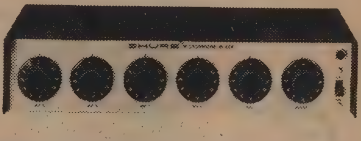
Shure Model M267 Microphone Mixer—Net Each... **$415.00**

M268 MICROPHONE MIXER

Professional microphone mixer features mix bus for simple mixer interconnection, simplex (phantom) power, automatic muting circuit, active gain controls, and power supply regulation. When used with the optional accessory battery power supply, the M268 switches automatically and silently to battery power if the AC power fails. **Frequency Response:** ±3 dB from 40 to 20,000 Hz. **Equivalent Input Hum and Noise:** −125 dBV. **Distortion:** Less than 0.2% THD from 40 to 20,000 Hz. **Input Clipping Level:** Low impedance microphone, −32 to −5 dBV; High impedance microphone, −10 to +18 dBV; Aux, +14 to +30 dBV; Mix Bus, +8 dBV. **Output Clipping Level:** Low Impedance Microphone, −20 dBV; High Impedance Microphone, +4.5 dBV; Aux, +17 dBV; Mix Bus, −8 dBV. **Operating Power:** 105–125 VAC, 50/60 Hz. **Size:** $2\frac{31}{32}$″ h. x $12\frac{5}{32}$″ w. x 9″ d. **Weight:** 4 lbs., 2 ozs.

Shure Model M268 Microphone Mixer—Net Each... **$257.00**

M68 SERIES MICROPHONE MIXER

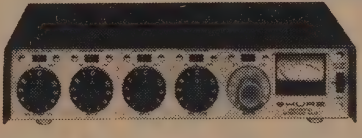


For increasing the efficiency and flexibility of public address and paging systems, or tape recorders using more than one microphone. Each sound source can be cut in or out of the system without loss of output level. Separate volume controls for each input, plus a master control for gain of all inputs. Light-weight portable and easy to operate. **Frequency Response:** 40–20,000 Hz. **Hum and Noise:** 70 dB below rated output. **Inputs:** Four microphone: Cannon XLR-type connectors for dynamic or ribbon microphone (not recommended for crystal or ceramic mikes); auxiliary input for high level tape recorder, phono or tuner. **Input Impedance:** High or low impedance, balanced or unbalanced, selected by slide switch for each input. **Outputs:** High or low impedance to mike input of PA amplifier or tape recorder; high impedance, high level output for power amplifier requiring 0.5 to 2 volts. Can be used with any type of amplifier. **Controls:** 5 input volume controls; master volume control; on-off switch for AC power or DC when used with A68B battery power supply. **Size:** 11⅜″ wide x 5¼″ deep x 2⅝″ high. Shipping Weight, 4 lbs.

Shure Model M68 Mixer—Male Cannon XLR-3-14 type input connections (mate with XLR-3-11C type connectors). Net Each.................................... **$205.00**

Shure Model M68FC Mixer—Female Cannon XLR-3-13 type input connections (mate with XLR-3-12C type connectors). Net Each.................................... **$205.00**

MODEL M67 PROFESSIONAL MIKE MIXER



For recording, studio or remote broadcasting amplification. Provides 4 balanced mike inputs, one line input. Headphone monitor jack, two-level, illum. VU. AC or battery power. Noiseless, automatic switchover to battery if AC fails. **Frequency Response:** ±2 dB, 30–20,000 Hz. **Gain:** 91 dB max., 150-ohm mike into 600-ohm line. **Noise:** −125 dBV. **Distortion:** Under 1%, 20–20,000 Hz. **Output Level:** +18 dBm max., 600-ohm line; −44 dBV max., mike. **Size:** 11⅜″ w. x 7½″ d. x 2⅝″ h. Wt., 4 lbs., 3 oz.

Shure Model M67 Mixer—Net Each.............. **$365.00**

MODEL SE30 GATED COMPRESSOR/MIXER

Self-contained, portable, three-input mixer and remote amplifier combined with high quality compressor. Compressor features automatic "gain riding", hence limiting output at a desired level despite sharp increases of input, or increases the output level when input level decreases. Incorporated in this compression system is a gated memory feature that minimizes "pumping" (the effect of compression recovery during program pauses). **Frequency Response:** 30–20,000 Hz. **Size:** 15″ w. x 10″ d. x 3½″ h. Weight, 9 lbs. 13½ oz.

Shure Model SE30 Gated Compressor/Mixer—Net Each.................. **$710.00**

Shure Model SE30-2E—For 120/240 VAC. Net Each.................. **740.00**

MIXER AND CONTROLLER ACCESSORIES

Shure Model A67B Battery Power Supply—For M67 mixer. May be used as power source, or for standby during AC operation. Net Each.................................... **$33.00**

Shure Model A68M Accessory Preamplifier—Add-on preamplifier that converts high impedance microphone line, low impedance balanced microphone line, or high level balanced (bridging) line to a high level, high impedance signal for use with auxiliary high inputs on Shure "M" series circuitry items. Net Each.. **$52.50**

Shure Model A68L Locking Panel—Fastens over controls to prevent tampering. Supplied with padlock. Fits M68 Series. Net Each.................................... **$16.50**

Shure Model A68R Rack Panel Kit—Standard 19″ x 3½″ audio equipment rack panel for use with M68 Series, M67. Gray hammertone finish. Net Each.......................... **$18.75**

Shure Model A68R-BL Rack Panel Kit—Same, except black finish to match Shure audio components. Net Each.... **$18.75**

Shure A100B Rack Panel Kit—For SE30 Gated Compressor/Mixer. Black finish. Net Each.................... **$25.25**

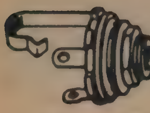
Shure Model A268B Battery Power Supply—For M267 and M268 mixers. For standby operation on AC failure. Net Each.................................... **$37.75**

Shure Model A268R Rack Panel Mount—For M267 and M268 mixers. Net Each.................................... **$22.00**

Shure Model A101B Panel Lamp—Illuminates audio console in dimly lit areas. Attaches to Amphenol 80-PC2F connector on console. Net Each.................................... **$34.50**

SWITCHCRAFT® INC. Audio Connectors

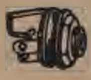
PHONE JACKS



"Littel-Jax"

LITTEL-JAX®

Two and three conductor phone jacks to mate with ¼" phone plugs. Mount in ⅜" hole in panels up to 5/32" thick.
No. 11P2—2-cond., open circuit. List Price per Pair........................**$2.60**
No. 12AP2—2-cond., single closed circuit. List Price per Pair..............**$2.80**
No. 12BP2—3-cond., open circuit. List Price per Pair...................**$3.00**



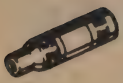
"Tini-Jax"

STEREO LITTEL-JAX

Three conductor phone jack. Switches speakers off when connecting stereo headphones. Dual NC contacts open both stereo circuits independently when 3-cond. plug is inserted.
No. 14BP2—3-cond., dual closed circuit. List Price per Pair..............**$5.70**

TINI-JAX®

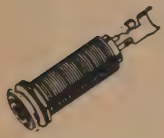
Two conductor miniature phone jacks to mate with Tini-Plug and all miniature plugs with 9/64" dia. finger.
No. 41P2—2-cond., open circuit. List Price per Pair.......................**$2.40**
No. 42AP2—2-cond., closed circuit. List Price per Pair...................**$2.60**



"Tini-Extension Jax"

"EXTENSION JAX"

Two and three conductor extension phone jacks for standard ¼" dia. phone plugs. Screw-on handle.
No. 80P1—2-cond., screw terminals, black handle. List Price...............**$3.40**
No. 88P1—2-cond., solder terminals, black handle. List Price..............**$3.40**
No. 120P1—2-cond., screw terminals, shielded handle. List Price.......**$4.20**
No. 121P1—2-cond., solder terminals, shielded handle. List Price.......**$4.30**
No. 131P1—3-cond., solder terminals, shielded handle. List Price.......**$5.25**
No. 830P1—3-cond., screw terminals, black handle. List Price..........**$4.50**



"Thick-Panel Jax"

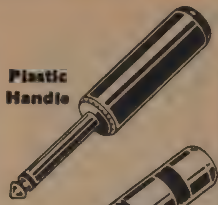
"TINI-EXTENSION JAX"

An extension or cable jack to mate with Tini-Plug®. Metal housing. Screw-on handle.
No. 125P1—2-cond., solder terminals, shielded handle. List Price.......**$3.50**

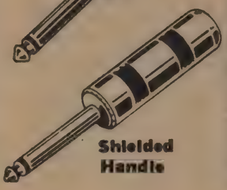
"THICK-PANEL JAX"

Standard ¼" dia. phone jacks with long bushing to mount in panels up to 1¼" thick.
No. 151P1—2-cond. List Price....**$4.00**
No. 152BP1—3-cond. List Price..**$4.30**

PHONE PLUGS



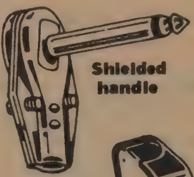
Plastic Handle



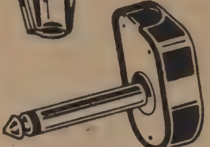
Shielded Handle

LITTEL-PLUG®

Small handle phone plugs fit standard ¼" dia. phone jacks such as Littel-Jax.
No. 240P2—2-cond., screw terminals, black handle. List Price per Pair.......**$4.20**
No. 245P2—2-cond., screw terminals, red handle. List Price per Pair.......**$4.20**
No. 250P2—2-cond., solder terminals, black handle. List Price per Pair.......**$3.85**
No. 260P2—3-cond., screw terminals, black handle. List Price per Pair.......**$6.50**
No. 267P2—3-cond., solder terminals, black handle. List Price per Pair.......**$5.70**
No. 270P2—2-cond., screw terminals, shielded handle. List Price/Pair..**$6.20**
No. 280P2—2-cond., solder terminals, shielded handle. List Price/Pair..**$5.45**
No. 290P2—3-cond., screw terminals, shielded handle. List Price/Pair..**$7.30**



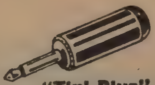
Shielded handle



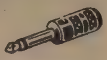
Plastic handle

"FLAT-PLUG"

¼" dia. phone plugs with space-saving, right-angle handles.
No. 220P2—2-cond., screw terminals, black handle. List Price per Pair.......**$5.70**
No. 2228P—2-cond., solder terminals, shielded handle. List Price/Pair..**$5.20**



"Tini-Plug"



"Micro-Plug"

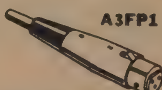
TINI-PLUG

Miniature, 2-conductor phone plugs mate with Tini-Jax. Handles 1⅝" long.
No. 740P2—Screw terminals, black handle. List Price per Pair..............**$3.65**
No. 745P2—Screw terminals, red handle. List Price per Pair..............**$3.65**
No. 770P2—Screw terminals, shielded handle. List Price per Pair.......**$5.10**

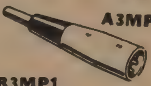
MICRO-PLUG®

Subminiature, 2-conductor phone plugs only 1 1/64" long. Finger .097" dia. mates with Micro-Jax. Screw-on handles. Solder terminals.
No. 850P2—Black handle. List Price per Pair................................**$3.65**

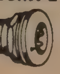
AUDIO AND PHONO CONNECTORS



A3FP1



A3MP1

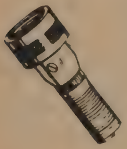


B3MP1

"Q-G" CONNECTORS

"Quick-Ground" connectors with exclusive "Ground-Terminal." Possible loss of insert screw is eliminated by left-hand threaded screw. Mate with all other connectors with similar contact arrangement. Die cast zinc body with satin-nickel finish.
No. A3FP1—Female plug, 3 contacts. List Price..................................**$5.00**
No. A3MP1—Male plug, 3 pins. List Price......................**$4.35**
No. A4FP1—Female plug, 4 contacts. List Price..................................**$6.05**
No. A4MP1—Male plug, 4 pins. List Price......................**$4.55**
No. B3MP1—Male panel receptacle. Mounts with locknut. 3 pins. List Price......................**$6.00**

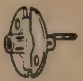
CONNECTORS



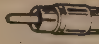
MICROPHONE CONNECTORS

Small connectors with ⅝-27 threads. For single conductor cable with 9/32" max. O.D. Brass, nickel-plated shells.
No. 2501FP1—Female connector with coupling ring. List Price..............**$1.95**

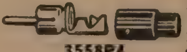
PHONO JACKS AND PLUGS



3501FP5



3502P2



3558P4

Economy, 2-cond. phono jacks and plugs for record players, FM/AM tuners, tape recorders, etc.
No. 3501FP5—Chassis jack. List Price per Package of Five..........................**$2.40**
No. 3501FPP4—Chassis jack for front mount in ¼" dia. hole. List Price per Package of Four..........................**$3.20**
No. 3502P2—Plug with screw-on handle and cable clamp List Price per Pair....**$2 40**
No. 3503P2—"Extension Jax," shielded metal handle cable clamp. List Price per Pair..........................**$3.40**
No. 3558P4—Plugs with snap-on handles in red, white and black. List Price per Package of Four..........................**$2.80**

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AMPERITE Relays

AMPERITE THERMAL TIME-DELAY RELAYS

MADE IN U.S.A.

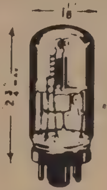
Thermal Time-Delay Relays Voltages 2, 5, 6, 12, 26, 50 or 115V followed by **NO** or **C** followed by 2, 3, 5, 8, 10, 15, 20, 30, 45, 60, 75, 90, 120, 150 or 180 may be followed by suffixes **L** (Wire Leads) or **T**(9-Pin Miniature Prongs). Optional Suffixes: **E** after **L** or **T** for Plastic Tube Encapsulation over glass bulb (Example: 115NO2**TE** or **LE**). **Thermal Flashing Units:** Voltages, 2, 5, 6, 12, 26, 115 followed by **F*** followed by 5, 10, 30, 45, 60, 75, 90, 100 may be followed by suffixes **L, T, LE,** or **TE** as described above. ***FPM** (flashes-per-minute).

Glass Enclosed—Hermetically Sealed—AC, DC or Pulsating Current. Circuits: SPST only — normally open or normally closed. Heater Wattage: The wattage consumed is approx. 2 W. Heaters can be operated continuously. **Contact Rating, Non-Inductive:** 115 V, 3 amps AC; 220 V, 1 amp. For 220 V, use a 6500Ω, 5 W resistor in series with 115 V heater. **DC Voltage Breakdown:** 2-10 sec. types, 250 V contact-to-contact. 500 V heater-to-contact; 15-180 sec. types, 800 V. **Contact Drop:** 0.1 V, prox. at 1 amp. **Ambient Temperature:** Compensated for -55° C to + 80° C; operable from -80° C to + 125° C. **Life:** With 115 V, 2 amp AC noninductive load, at least 250,000 operations. 100% lot tested reliable.

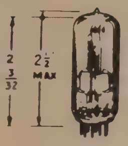
Universal Timing Module — Model UTM-1: Assembled **$39.95**; Kit **$29.95**

***NEW!** Amperite **APPLICATIONS MANUAL** (AM82) ONLY – $5.00*
on Time-Delay Relays and Current-Voltage Regulators.

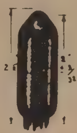
Underwriters Laboratories Listing Number E41698.



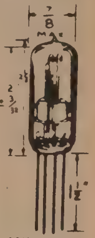
STANDARD OCTAL
Examples
12NO2
115C60
6F30



9-PIN MINIATURE
Examples:
115NO60T
115C60T
6F30T



MINIATURES ENCAPSULATED
With Plastic
Tube Shield.
Examples
115NO60**TE**
115C60**TE**
(Not shown)
115NO60**LE**
115C60**LE**



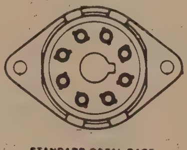
MIN WITH WIRE LEADS
No socket required.
Examples
115N060L
115C60L
115F60L

Use the following schematic to compose desired Relay Model No.

VOLTAGE	NORM. OPEN or NORM. CLOSED	DELAY in SECONDS	MINIATURES: 9-PIN (T) — or 4 WIRE LEADS (L). +Encapsulation (E)
☐☐☐	☐☐	☐☐☐	T, L, or Blank (E)
2.5 to 115V	NO or C or F*	2 to 180 or 30 to 90 FPM**	**T** for 9-PIN MIN. BASE **L** for WIRE LEADS (E) for encapsulation **BLANK** for OCTAL

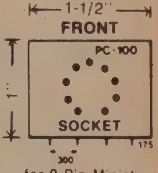
*Flasher **Flashes per min.

— SOCKETS ONLY —



STANDARD OCTAL BASE

9-PIN MINIATURE BASE



for 9-Pin Miniature

Delay-Seconds	Tolerance Seconds at 20° C	NORMALLY OPEN CONTACTS HEATER VOLTAGES 2.5 V	5.0 V	6.3 V	12.6 V	26 V (22-30)	50 V	115 V	NORMALLY CLOSED CONTACTS HEATER VOLTAGES 2.5 V	5.0 V	6.3 V	12.6 V	26 V (22-30)	50 V	115 V
2	±1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
3	±1½	2N03	5N03	6N03	12N03	26N03	50N03	115N03	2C3	5C3	6C3	12C3	26C3	50C3	115C3
5	±2½	2N05	5N05	6N05	12N05	26N05	50N05	115N05	2C5	5C5	6C5	12C5	26C5	50C5	115C5
8	±3	2N08	5N08	6N08	12N08	26N08	50N08	115N08	2C8	5C8	6C8	12C8	26C8	50C8	115C8
10	±4	2N010	5N010	6N010	12N010	26N010	50N010	115N010	2C10	5C10	6C10	12C10	26C10	50C10	115C10
15	±4	2N015	5N015	6N015	12N015	26N015	50N015	115N015	2C15	5C15	6C15	12C15	26C15	50C15	115C15
20	±5	2N020	5N020	6N020	12N020	26N020	50N020	115N020	2C20	5C20	6C20	12C20	26C20	50C20	115C20
30	±10	2N030	5N030	6N030	12N030	26N030	50N030	115N030	2C30	5C30	6C30	12C30	26C30	50C30	115C30
45	±10	2N045	5N045	6N045	12N045	26N045	50N045	115N045	2C45	5C45	6C45	12C45	26C45	50C45	115C45
60	±15	2N060	5N060	6N060	12N060	26N060	50N060	115N060	2C60	5C60	6C60	12C60	26C60	50C60	115C60
75	±15	2N075	5N075	6N075	12N075	26N075	50N075	115N075	2C75	5C75	6C75	12C75	26C75	50C75	115C75
90	±20	2N090	5N090	6N090	12N090	26N090	50N090	115N090	2C90	5C90	6C90	12C90	26C90	50C90	115C90
120	±35	2N0120	5N0120	6N0120	12N0120	26N0120	50N0120	115N0120	2C120	5C120	6C120	12C120	26C120	50C120	115C120
150	±35	2N0150	5N0150	6N0150	12N0150	26N0150	50N0150	115N0150	2C150	5C150	6C150	12C150	26C150	50C150	115C150
180	±45	2N0180	5N0180	6N0180	12N0180	26N0180	50N0180	115N0180	2C180	5C180	6C180	12C180	26C180	50C180	115C180

Special Time Delay Relays in addition to the above are available in **Normally Open** or **Normally Closed** versions from 1V to 120V with fixed time delays from 2 to 180 seconds.

VOLTAGE DIFFERENTIAL RELAYS AVAILABLE

TYPE NO.	Pull-In Voltage	Drop-Out Voltage
*	*	*
D100V	106V	94V
DC100V	94	106
D90V	96	84
DC90V	84	96
D80V	86	74
DC80V	74	86
D70V	76	64
DC70V	64	76
D50V	55	45
DC50V	45	55
D26V	28	24
DC26V	24	28
D20V	24	17
DC20V	17	24

***Other specifications on request.**

HOW TO SPECIFY:

D or DC [(5 - 110)Volts] is Normally Open / Closed — AMPERITE VOLTAGE DIFFERENTIAL RELAY

***PARTIAL LIST OF CURRENT DIFFERENTIAL RELAYS**

TYPE NO.	CONTACTS CLOSE @	CONTACTS OPEN @	DELAY (SECONDS) @ HEATER CURRENT
CDR140C170	1.40A	1.70A	5-10 SEC. @ 2.5 A
CDR170NO140	1.70A	1.40A	5-10 SEC. @ 2.5 A
CDR180C220	1.80A	2.20A	10-18 SEC. @ 2.75 A
CDR220NO180	2.20A	1.80A	10-18 SEC. @ 2.75 A
CDR275C320	2.75A	3.20A	10-18 SEC. @ 3.5 A
CDR320NO275	3.20A	2.75A	10-18 SEC. @ 3.5 A
CDR300C350	3.00A	3.50A	8-10 SEC. @ 5.0 A
CDR350C400	3.50A	4.00A	18-25 SEC. @ 4.5 A
CDR400NO350	4.00A	3.50A	18-25 SEC. @ 4.5 A

Special Voltage Differential Relays are available in normally open or normally closed versions from **5** to **110** volts. In general, the voltage differential between **Pull-in** and **Drop-Out** will be approx. ± 6% of nominal at 100V and ± 10 to 20% at the lowest voltages.

Current Differential Relays can be manufactured to handle 1.5 to 5.0 amps of current with a 0.3 ampere change (min.) between drop-in and drop-out current values.

Special: Amperite Replacement Tube Program. Any Amperite part ever manufactured may be ordered.

All Standard Octal, 9-Pin Min. **(T)**, Wire Leads **(L)** RELAYS and FLASHERS.

For **Plastic Encapsulation** of T or L Relays, **ADD** $1.00 to each price.

For Specials, Differentials and Long Delay Relays, **ADD** $2.00 to each price.

TIME DELAY RELAY PRICES **1/83**

Quantity	OEM Net Price Ea.
1 to 3	$14.99
4 to 9	11.32
10 to 49	9.75
50 to 99	8.52
100 to 499	7.30
500 to 999	6.10
1000 & up	Quote

SOCKETS

	Quantity	OEM Net Price Ea.
New PC-100 — For 9-Pin Miniature	Any	$2.29
9-Pin Miniature (Solder Tabs) —	Any	.99
Standard Octal (Solder Tabs) —	Any	1.29

AMPERITE LONG DELAY THERMAL TIME-DELAY RELAYS

240 & 300 Seconds Delays

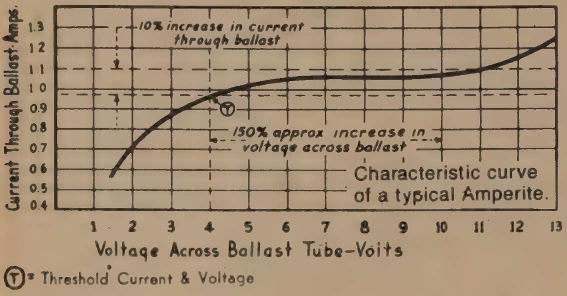
Glass enclosed . . . With true hermetic sealing . . . Not affected by altitude, moisture, or other atmospheric conditions . . . Replaced as easily as a radio tube . . . Standard octal base.

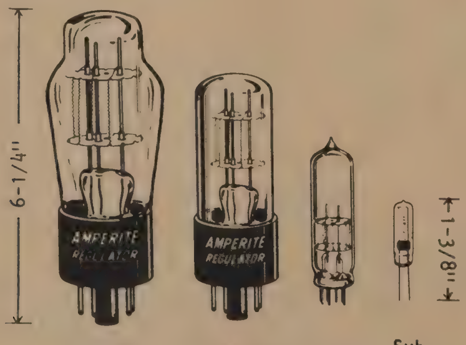
Delay in Seconds	Tolerance in Seconds @ 20°C	HEATER VOLTAGES			
		NORMALLY OPEN CONTACTS			
		6.3V	12.6V	26V	115V
240	± 50	6NO240	12NO240	26NO240	115NO240
300	± 55	6NO300	12NO300	26NO300	115NO300
		NORMALLY CLOSED CONTACTS			
		6.3V	12.6V	26V	115V
240	± 50	6C240	12C240	26C240	115C240
300	± 55	6C300	12C300	26C300	115C300

Special Fast & Slow Recycle Relays (NO or C) are available in all voltages from **2** to **120V**. The fastest Special Fast Recycle Relays Amperite manufactures are designated by the suffix **6**. e.g.: 2NO6, 2C6 . . . 115NO6. These relays can be operated continuously; the initial time delay will range from 6.5 to 10 sec.; the relay will recycle in **3-5** sec. max. Special Slow Recycle Relays are available for all intermediate times through **3-5** minutes maximum.

AMPERITE CURRENT-VOLTAGE REGULATORS (BALLAST)

Maintains a constant current in a circuit over a wide range of input voltages. Models available to regulate 50 milliamps to 6 amps. As supply voltage increases, ballast tube resistance increases. Regulating action is based on the high temperature positive coefficient of resistance element and heat dissipation qualities of gas-filled tube.





ST-14 thru ST-19 T-9, T-12 T-5-1/2 T-6-1/2 Sub-Min.

CURRENT-VOLTAGE REGULATOR PRICES 1/83

Quantity	OEM Net Price Ea.
ALL	$49.88 & up
Request Quotations	

SPECIAL RECYCLE THERMAL RELAYS

FAST RECYCLE RELAYS

TYPE NO.	INITIAL DELAY (Seconds)	HEATER VOLTAGE (On Time) *+	RECYCLE TIME
115N06	4-1/2 - 8	3 Minutes+	5 seconds
115N08T	7 - 12	3 Minutes+	5-10 seconds
115C29T	22 - 38	30 Seconds	8-20 seconds

SLOW RECYCLE RELAYS

TYPE NO.	INITIAL DELAY (Seconds)	HEATER VOLTAGE (Min. on Time)+	RECYCLE TIME
115N07T-C7T	3 - 7	30 Seconds	30 sec. (min.)
115N029T	20 - 30	3 Minutes	30 sec. (min.)
115N043	10 - 30	3 Minutes	2 - 4 minutes
115N044	30 - 55	3 Minutes	30 - 55 seconds
115C49T	15 - 40	2 Minutes	2 minutes
115N058	30 - 50	2 Minutes	40 sec. (min.)
115N061	20 - 30	3 Minutes	140 - 240 sec.
115N069	40 - 60	3 Minutes	3 - 5 minutes

*Required Minimum On Times for stated Recycle Times.

+May be operated continuously

CURRENT-VOLTAGE REGULATORS (BALLAST) — Engineering Data

POPULAR BALLAST REPLACEMENT NUMBERS

D5TF30
D6TK7
1HM4
1HT4
2TK7
2A12
3-4
3TF4
3TF7
3H-7
3A10
4H-4C
4HTF4
4A10S
5-4B
6-4
6-4B
6-36
7-7A
7H-4B
13-4
27-7
MX408 U

QUALIFIED UNDER MIL-R-3080

TJ102L01
TJ311M01
TJ601K01
TJ791K01

CURRENT AMPS	VOLTAGE	TYPE	VOLTAGE	TYPE	VOLTAGE	TYPE
0.05	12.0-30.0	D5-10	30.0-60.0	D5TF30		
0.06	4.3- 8.3	D6TF4	12.0-30.0	D6TF9	20.0-40.0	D6TF20
0.08	8.0-12.0	D7TF7	12.0-30.0	D8TF10	20.0-40.0	D8TF20
0.10	2.6- 4.4	1TF2				
0.12			12.0-46.0	1-15		
0.15					18.0-60.0	1H-20
0.17					35.0-87.0	1H-46
0.20			14.0-20.0	2-14		
0.25			12.0-30.0	2A10	20.0-40.0	2A20
0.30	5.6- 8.4	3TF4A	15.0-30.0	3A10A	20.0-41.0	3A20
0.35	4.3- 8.3	3HTF4	7.0-18.5	3HTF7	20.0-40.0	3A20B
0.40	11.3-16.4	3HTF11	16.0-24.0	4A11	16.0-40.0	3H-20B
0.45	5.0-12.7	4TF7	12.0-30.0	4A10S	25.0-63.0	4H-25
0.50	4.3-10.0	4H4C	7.0-15.0	4HTF7	26.0-31.0	5A12
0.55	6.1- 7.4	5TF4	12.0-30.0	5A10	20.0-60.0	5A20
0.60	4.5- 7.8	5HTF4	12.0-30.0	5H-10	20.0-40.0	5HA20
0.65			10.0-23.0	6-12	12.0-30.0	6A10A
0.70	1.5- 4.5	6-14	5.1- 8.3	6H-6	16.0-33.0	6H10
0.75	4.3- 7.6	7H4	7.3-10.0	7H-7	15.0-37.0	7A20
0.80	4.3- 8.3	7HTF4	7.8-11.6	7H-7B		
0.85	3.3- 4.4	8TF3	4.7- 9.0	8-4D		
0.90	4.6- 6.7	8-4B	13.5-29.5	8A10A	32.0-78.0	7H-30
0.95	4.3- 9.7	9-4	11.6-16.2	9-6		
1.00	3.5- 4.95	9-2	6.8- 9.1	10-4C	15.0-34.0	9A10
1.25	3.5- 6.5	11-3	12.0-30.0	11A10		
1.50			4.7- 7.6	15-4	15.0-40.0	14A20
1.75	1.7- 3.4	15-2	4.0- 8.0	17-3	10.0-16.0	15-11
2.00			4.8- 8.3	20R4	20.0-40.0	17A20
2.25	1.3- 3.8	20-1H				
2.50	1.3-4.14	22-2	5.0-12.0	20-4	12.5-17.5	22-12
2.75			3.5-11.0	27-7		
3.00			4.55- 6.85	30R4		
3.25	1.2- 2.4	30TF1	11.0-18.0	30-11		
3.50	3.4- 5.1	34-2	5.0- 9.1	30-7		
3.75			4.5- 7.5	35-4		
4.00	3.0- 5.0	40-3	6.5-19.5	33-11B		
4.25	3.1- 4.9	41-2	4.8- 6.7	40-4	6.0-18.0	40-6E
4.50	3.0- 3.5	42-2H	3.7- 7.7	43-3		
4.75			6.5-19.5	36-11		
5.00	2.2- 4.5	46-2	4.0- 8.0	50-4		
5.25	1.8- 2.4	50-1H				
5.50	1.7- 2.8	50-2				
5.75	1.5- 2.0	55-1				
6.00	2.7- 3.4	55-1H				
6.25			4.0- 8.0	55-4		
6.50			4.0- 8.0	55-4		
6.75	1.5- 3.5	60-1				

Specific AMPERITE **Automatic Current & Voltage Regulators** (Ballast) are available to provide regulated current ranging from 50 milliamperes to 6 amperes (per regulator) within voltage ranges from 3 to 70 volts. Any number of tubes may be connected in parallel to attain any desired current. The current can be kept to ± 1%. Consult Amperite before selecting type number for application.

DALE

Housed Wirewound Resistors

DALE

SERIES RH PRECISION POWER WIREWOUND RESISTORS

For applications requiring high power and precision tolerances. Choice of six models, 5 thru 250 watts. Complete welded construction, terminal to terminal. Thoroughly protected against moisture, salt spray, vibration and shock. Molded construction housed in aluminum. All types have flat marking surface on top of housing. Designed to use heat-sink effect of chassis. Screw mounted to chassis. Temperature Coefficient, ±20 ppm/° C., ±30 ppm/° C .or ±50 ppm/° C., depending on resistance value. Units meet or exceed requirements of MIL-R-18546. Also available in non-inductive winding.

Series Dale	MIL-R-18546 Type	Rating, Watts	Resistance Range, Ohms		Max. Working Volts	Size, Inches		
			0.05%, 0.1%	1%, 3%, 5%		L.	W.	H.
RH-5		7.5	1-6.5K	1-24.5K	160	.600	.334	.320
	RE60G	5.0		0.1-3.32K				
RH-10		12.5	1-12.7K	0.008-47.1K	265	.750	.420	.390
	RE65G	10		0.1-5.62K				
RH-25		25	0.5-25.7K	0.01-95.2K	550	1.062	.550	.546
	RE70G	20		0.1-12.1K				
RH-50		50	0.5-73.4K	0.01-273K	1250	1.968	.630	.610
	RE75G	30		0.1-392K				
RH-100		100	0.3-50K	0.05-59K	1900	3.50	1.812	1.750
	RE77G	75		0.05-29.4K				
RH-250		250	0.3-75K	0.1-75K	2300	4.500	2.125	2.188
	RE80G	120		0.1-35.7K				

PRICING FOR RH SERIES—1%, 3% AND 5% TOLERANCE OBSERVE OHMIC LIMITS FOR EACH SERIES

Dale Type & Ohmic Limits	MIL-R-18546 Type and Ohmic Limits	Resistance Range, Ohms	Net Each, Lots of			
			1-24	25-49	50-99	100-249
RH-5 0.1 to 24.5K	RE60G 0.1 to 3.32K	0.1 to 0.49	$3.74	$3.37	$3.06	$2.81
		0.5 to 0.99	3.60	3.12	2.89	2.66
		1 to 1K	2.94	2.35	2.21	2.05
		1.1K to 5K	3.08	2.47	2.31	2.16
		5.1K to 10K	3.37	2.68	2.52	2.35
		10.1K to 12K	3.68	2.94	2.78	2.58
		12.1K to 15K	4.00	3.20	3.01	2.81
		15.1K to 25K	4.30	3.95	3.59	3.21
RH-10 0.008 to 47.1K	RE65G 0.1 to 5.62K	0.008 to 0.012	3.74	3.36	3.06	2.81
		0.013 to 0.025	3.62	3.24	2.94	2.71
		0.026 to 0.046	3.60	3.13	2.89	2.66
		0.047 to 0.099	3.61	3.23	2.94	2.71
		0.1 to 0.49	3.74	3.37	3.06	2.81
		0.5 to 0.99	3.60	3.12	2.89	2.66
		1 to 1K	2.94	2.35	2.21	2.05
		1.1K to 5K	3.08	2.47	2.31	2.16
		5.1K to 10K	3.37	2.68	2.52	2.35
		10.1K to 12K	3.68	2.94	2.78	2.58
		12.1K to 15K	4.00	3.20	3.01	2.81
		15.1K to 25K	4.30	3.95	3.59	3.21
		25.1K to 40K	4.78	4.37	3.97	3.57
		40.1K to 47.1K	5.24	4.75	4.36	3.99
RH-25 0.01 to 95.2K	RE70G 0.1 to 12.1K	0.01 to 0.015	3.92	3.60	3.27	3.02
		0.016 to 0.03	3.88	3.51	3.21	2.96
		0.031 to 0.05	3.82	3.48	3.16	2.92
		0.051 to 0.072	3.78	3.41	3.10	2.86
		0.073 to 0.099	3.82	3.48	3.16	2.92
		0.1 to 0.49	3.92	3.60	3.27	3.02
		0.5 to 0.99	3.78	3.41	3.10	2.86
		1 to 1K	2.94	2.35	2.21	2.05
		1.1K to 5K	3.08	2.47	2.31	2.16
		5.1K to 10K	3.36	2.68	2.52	2.34
		10.1K to 12K	3.68	2.94	2.78	2.58
		12.1K to 15K	4.01	3.21	3.02	2.82
		15.1K to 25K	4.30	3.95	3.59	3.21
		25.1K to 40K	4.78	4.37	3.97	3.57
		40.1K to 50K	5.24	4.76	4.36	3.99
		50.1K to 60K	5.72	5.22	4.71	4.17
		60.1K to 75K	6.23	5.68	5.10	4.54
		75.1K to 95.2K	6.86	6.23	5.61	5.04
RH-50 0.01 to 273K	RE75G 0.1 to 39.2K	0.01 to 0.015	4.18	3.84	3.51	3.27
		0.016 to 0.035	4.14	3.78	3.48	3.23
		0.036 to 0.05	4.09	3.73	3.41	3.15
		0.051 to 0.075	4.03	3.67	3.36	3.12
		0.076 to 0.099	4.00	3.63	3.32	3.07
		0.1 to 0.49	4.09	3.73	3.40	3.15
		0.5 to 0.99	4.03	3.67	3.37	3.12
		1 to 5.9	4.01	3.64	3.23	2.97
		6 to 1K	3.61	2.88	2.69	2.52
		1.1K to 5K	3.76	3.03	2.84	2.65
		5.1K to 10K	4.08	3.25	3.06	2.87
		10.1K to 20K	4.53	3.62	3.39	3.19
		20.1K to 55K	4.94	3.95	3.68	3.46
		55.1K to 75K	5.37	4.28	4.01	3.76
		75.1K to 100K	5.75	4.58	4.34	4.02
		100.1K to 125K	6.26	4.99	4.69	4.38
		125.1K to 150K	6.72	5.39	5.04	4.70
		150.1K to 175K	7.21	5.75	5.39	5.04
		175.1K to 225K	7.65	6.04	5.78	5.31
		225.1K to 273K	8.25	6.48	6.25	5.68
RH-100 0.1 to 59K	RE77G 0.05 to 29.4K	0.1 to 0.99	19.14	16.94	15.83	14.66
		1 to 5	17.92	15.85	14.82	13.72
		5.1 to 50	18.28	16.18	15.12	14.00
		50.1 to 1K	18.44	16.32	15.25	14.12
		1.1K to 10K	19.26	17.04	15.93	14.75
		10.1K to 20K	19.95	17.66	16.50	15.28
		20.1K to 35K	20.16	17.84	16.67	15.44
		35.1K to 50K	20.48	18.12	16.93	15.68
		50.1K to 59K	21.05	18.63	17.41	16.12
RH-250 0.1 to 75K	RE80G 0.1 to 35.7K	0.1 to 0.99	24.55	21.73	20.30	18.80
		1 to 5	23.90	21.15	19.76	18.30
		5.1 to 50	23.68	20.96	19.59	18.14
		50.1 to 1K	24.03	21.26	19.87	18.40
		1.1K to 10K	24.81	21.96	20.52	19.00
		10.1K to 20K	25.59	22.65	21.17	19.60
		20.1K to 35K	26.05	23.05	21.55	19.95
		35.1K to 55K	26.31	23.29	21.76	20.15
		55.1K to 75K	26.77	23.69	22.14	20.50

STANDARD VALUES IN OHMS FOR RH SERIES

0.008
0.01
0.02
0.03
0.05
0.1
0.15
0.2
0.25
0.3
0.5
0.75
1.0
1.5
2.0
2.5
3.0
3.3
4.0
5.0
6.0
7.0
7.5
8.0
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400
430
450
470
500
560
600
680
700
750
910
1K
1.2K
1.3K
1.5K
1.8K
2K
2.2K
2.5K
3K
3.5K
4K
5K
10K
15K
20K
25K
40K
50K
100K
150K

PRICE ADDERS FOR HIGHER TOLERANCES

Required Tolerance	Price Adder
±0.5%	2 × Base Price
±0.25%	2.5 × Base Price
±0.1%	3 × Base Price
±0.05%	4 × Base Price

Metal Film Resistors

PRECISION METAL FILM RESISTORS

COATED METAL-FILM RESISTORS TO MIL-R-10509

Metal-film resistors with low noise and controlled temperature coefficient. Flame retardant epoxy coating. Dielectric strength, 450 VAC for CMF55, 750 VAC for CMF60 and 900 VAC for CMF65. Insulation resistance, 10,000 megohms min., dry. Resistor tolerance, ±1%. Temperature coefficient, T-0 = 0 ±150 ppm/° C.; T-1 = 0 ±100 ppm/° C.; T-2 = 0 ±50 ppm/° C.; T-9 = 0 ±25 ppm/° C.

Dale Style	T.C. Code	Resistance Range, Ohms	Net Each, Lots of 1-24	25-49	50-99	100-249
CMF50	T-0	10 to 24.8	$3.45	$1.64	$1.05	$0.78
(RN50)	T-1	24.9 to 49.8	3.45	1.64	1.05	.78
		49.9 to 100K	2.25	1.07	.68	.50
		101K to 499K	3.45	1.64	1.05	.78
		500K to 796K	6.75	3.21	2.05	1.50
	T-2	24.9 to 49.8	4.05	1.93	1.23	.90
		49.9 to 100K	2.70	1.29	.82	.60
		101K to 499K	4.05	1.93	1.23	.90
	T-9	24.9 to 49.8	5.85	2.79	1.77	1.30
		49.9 to 100K	3.90	1.86	1.18	.87
		101K to 499K	5.85	2.79	1.77	1.30
CMF60	T-0	1 to 4.99	4.60	2.19	1.39	1.02
or	T-1	5 to 9.99	2.98	1.42	.90	.66
CMF 1/8		10 to 199	1.78	.84	.47	.28
(RN60)		200 to 400K	1.76	.94	.46	.27
		401K to 1 meg	1.82	.87	.49	.30
		1.01 meg to 3 meg	3.42	1.63	1.04	.76
		3.01 meg to 5 meg	4.02	1.91	1.22	.89
	T-2	10 to 199	1.90	.91	.53	.34
		200 to 400K	1.82	.87	.49	.30
		401K to 1 meg	1.90	.91	.53	.34
		1.01 meg to 3 meg	4.60	2.20	1.39	1.02
	T-9	24.9 to 199	2.53	1.21	.84	.62
		200 to 400K	2.24	1.07	.69	.51
		401K to 1 meg	3.20	1.52	.97	.71
CMF55	T-0	1 to 4.99	4.50	2.14	1.36	1.00
or	T-1	5 to 9.99	2.58	1.23	.78	.57
CMF 1/10		10 to 199	1.78	.85	.47	.28
(RN55)		200 to 320K	1.72	.82	.44	.25
		321K to 1 meg	1.80	.86	.48	.29
		1.01 meg to 3 meg	3.38	1.61	1.02	.75
		3.01 meg to 5 meg	3.98	1.90	1.21	.88
	T-2	10 to 199	$1.86	$0.89	$0.51	$0.32
		200 to 320K	1.82	.87	.49	.30
		321K to 1 meg	1.88	.90	.52	.33
		1.01 meg to 3 meg	4.56	2.17	1.38	1.01
	T-9	24.9 to 199	2.53	1.21	.84	.62
		200 to 320K	2.24	1.07	.69	.51
		321K to 1 meg	3.20	1.52	.97	.71
CMF65	T-0	1 to 4.99	6.50	3.10	1.97	1.44
or	T-1	5 to 9.99	4.60	2.19	1.39	1.02
CMF 1/4		10 to 300K	1.96	.94	.57	.42
(RN65)		301K to 2 meg	2.60	1.24	.79	.58
		2.01 meg to 10 meg	4.70	2.24	1.42	1.04
		10.1 meg to 12 meg	6.50	3.10	1.97	1.44
	T-2	10 to 300K	2.11	1.01	.64	.47
		301K to 2 meg	3.10	1.48	.94	.69
		2.01 meg to 10 meg	7.60	3.62	2.30	1.69
	T-9	10 to 300K	4.00	1.90	1.21	.89
		301K to 2 meg	5.50	2.62	1.67	1.22

STANDARD VALUES FOR CMF SERIES

1.00	1.30	1.69	2.21	2.87	3.74	4.87	6.19	7.87
1.02	1.33	1.74	2.26	2.94	3.83	4.99	6.34	8.06
1.05	1.37	1.78	2.32	3.01	3.92	5.11	6.49	8.25
1.07	1.40	1.82	2.37	3.09	4.02	5.23	6.65	8.45
1.10	1.43	1.87	2.43	3.16	4.12	5.36	6.81	8.66
1.13	1.47	1.91	2.49	3.24	4.22	5.49	6.98	8.87
1.15	1.50	1.96	2.55	3.32	4.32	5.62	7.15	9.09
1.18	1.54	2.00	2.61	3.40	4.42	5.76	7.32	9.31
1.21	1.58	2.05	2.67	3.48	4.53	5.90	7.50	9.53
1.24	1.62	2.10	2.74	3.57	4.64	6.04	7.68	9.76
1.27	1.65	2.15	2.80	3.65	4.75			

COMMERCIAL METAL FILM RESISTORS

COMMON FEATURES: ● 1/4 watt at 70° C power rating ● 100 PPM/°C temperature coefficient ● Flame retardant epoxy conformal coating ● Color band marking for ease of identification after mounting.

COMMON ELECTRICAL SPECIFICATIONS: Resistance Range: 10 ohms to 1 Megohm. **Resistor Power Rating:** 1/4 watt at +70° C. **Maximum Working Voltage:** 250 VRMS. **Insulation Resistance:** 10,000 Megohms.

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1% DALE TYPE CCF-55 COATED COMMERCIAL METAL FILM
BULK PACK OR TAPE AND REEL PACKAGING

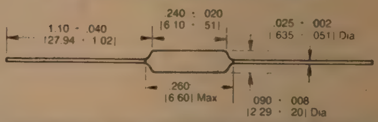
- Superior electrical performance. Meets or exceeds MIL-R-22684 (RL07) and MIL-R-10509 (RN55D).
- 1% tolerance.
- **Resistance Temperature Coefficient:** ±100 PPM/° C (–65° C to +165° C).
- **Operating Temperature Range:** –65° C to +165° C.
- **Resistance Tolerance:** ±1%.

T-1 (100 PPM/°C)—1% DECADE VALUES ONLY

Style	TC Code	Ohmic Range	Net per 1,000, Lots of 1,000-4,900	5,000-24,900	25,000-49,900	50,000-99,900	100,000-249,900	250,000-& Up
CCF-55	T1	10 ohms-1 Meg.	$37.10	$29.50	$25.40	$23.10	$21.90	$19.50

The Dale CFF-55 is available in the standard 96 resistance values per decade. Values are obtained from the following decade table by multiplying by powers of 10. Example: 30.1 can represent 30.1 ohms, 301 ohms, 3.01K, 30.1K or 301K.

PHYSICAL CONFIGURATION
[Numbers in brackets indicate millimeters]



10.0	11.5	13.3	15.4	17.8	20.5	23.7	27.4	31.6	36.5	42.2	48.7	56.2	64.9	75.0	86.6
10.2	11.8	13.7	15.8	18.2	21.0	24.3	28.0	32.4	37.4	43.2	49.9	57.6	66.5	76.8	88.7
10.5	12.1	14.0	16.2	18.7	21.5	24.9	28.7	33.2	38.3	44.2	51.1	59.0	68.1	78.7	90.9
10.7	12.4	14.3	16.5	19.1	22.1	25.5	29.4	34.0	39.2	45.3	52.3	60.4	69.8	80.6	93.1
11.0	12.7	14.7	16.9	19.6	22.6	26.1	30.1	34.8	40.2	46.4	53.6	61.9	71.5	82.5	95.3
11.3	13.0	15.0	17.4	20.0	23.2	26.7	30.9	35.7	41.2	47.5	54.9	63.4	73.2	84.5	97.6

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2% DALE TYPE CCF-07 COATED COMMERCIAL METAL FILM

● Meets electrical requirements of MIL-R-22684C (RL07) ● 2% tolerance ● Tape and reel packaging for automatic insertion; meets EIA RS-296-D, Class I requirements

Operating Temperature Range: –65° C to +150° C. **Resistance Tolerance:** ±2%. **Resistance Temperature Coefficient:** ±100 PPM/°C (–65° C to +150° C).

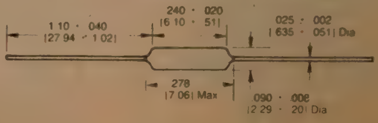
T-1 (100 PPM/°C)

Style	TC Code	Ohmic Range	Net per 1,000, Lots of 2,500-22,500	25,000-45,000	50-000-95,000	100,000-245,000	250,000-& Up
CCF-07	T1	10 ohms-1 Meg. ±2%	$23.70	$21.30	$20.00	$19.30	$17.20

The Dale CCF-07 is available in the standard 24 resistance values per decade. Values are obtained from the following decade table by multiplying by powers of 10. Example: 24 can represent 24 ohms, 240 ohms, 2.4K, 24K, or 240K.

10	13	18	24	33	43	56	75
11	15	20	27	36	47	62	82
12	16	22	30	39	51	68	91

PHYSICAL CONFIGURATION
[Numbers in brackets indicate millimeters]



DALE®

Wirewound Resistors

DALE

PRECISION POWER WIREWOUND RESISTORS

SERIES RS PRECISION POWER WIREWOUND RESISTORS

Designed to meet precision power requirements where space is at a premium. Outstanding silicone coating protects against moisture and salt spray; also maintains stable performance under severe environmental conditions. Completely welded construction from terminal to terminal. Meets or exceeds applicable MIL-R-26C, MIL-R-26E and MIL-R-23379 requirements. Dielectric strength, 500 VAC for 1/4, 1/2 and 1 watt types; 1000 VAC for all others. Temperature coefficient, ±30 to +90 ppm/° C. depending on resistance value.

STANDARD VALUES IN OHMS FOR RS SERIES

0.1	5.0	50	332	825	3.5K
0.13	6.0	60	350	900	4K
0.15	7.0	75	400	909	5K
0.2	7.5	100	450	1K	7K
0.25	8.0	110	470	1.1K	8.2K
0.3	10	120	500	1.2K	10K
0.33	15	125	510	1.3K	12K
0.5	20	150	560	1.5K	15K
0.75	25	180	600	1.78K	20K
1.0	30	200	619	1.8K	25K
1.2	33	220	620	2K	30K
1.5	35	250	681	2.2K	40K
2.0	40	270	700	2.5K	50K
3.0	45	300	750	3K	100K
4.0	47	330	800	3.3K	150K

PRICING ADDERS FOR HIGHER TOLERANCES

Required Tolerance	Price Adder
±0.5%	2 × Base Price
±0.25%	2.5 × Base Price
±0.1%	3 × Base Price
±0.05%	4 × Base Price

PRICING FOR RS SERIES—1%, 3% AND 5% TOLERANCE
OBSERVE OHMIC LIMITS FOR EACH SERIES

Dale Types & Ohmic Limits	MIL Type & Ohmic Limits	Resistance Range, Ohms	Net Each, Lots of			
			1-24	25-49	50-99	100-249
RS 1/4 1 to 3.4K **RS 1/2** 1 to 4.9K **RS-1A** 1 to 10.4K **RS-1B** 0.1 to 15K	RW-70 0.1 to 2.74K	0.1 to 0.49	$3.02	$2.72	$2.41	$1.98
		0.5 to 0.99	2.33	2.05	1.74	1.47
		1 to 1K	1.60	1.26	1.19	1.11
		1.1K to 4K	1.76	1.41	1.31	1.22
		4.1K to 15K	2.03	1.58	1.50	1.37
RS-2A 0.1 to 42.1K **RS-2B** 0.1 to 24.5K **RS-2C** 0.1 to 32.3K **RS-2** 0.1 to 47.1K **RS-5-69** 0.1 to 71K **RS-5** 0.1 to 95.2K **RS-7** 0.1 to 154K **RS-10-38** 0.1 to 265K **RS-10** 0.1 to 273K	RW-79 0.1 to 6.49K RW-74 0.1 to 24.3K RW-78 0.1 to 71.5K	0.1 to 0.49	$2.72	$2.44	$2.17	$1.78
		0.5 to 0.99	2.10	1.85	1.56	1.33
		1 to 1K	1.22	.97	.92	.84
		1.1K to 5K	1.35	1.08	1.02	.93
		5.1K to 10K	1.41	1.11	1.04	.97
		10.1K to 15K	1.47	1.17	1.09	1.03
		15.1K to 20K	1.91	1.33	1.16	1.08
		20.1K to 40K	1.63	1.30	1.22	1.12
		40.1K to 55K	1.75	1.41	1.31	1.22
		55.1K to 75K	1.92	1.52	1.45	1.34
		75.1K to 100K	2.12	1.70	1.60	1.48
		100.1K to 125K	2.32	1.91	1.75	1.63
		125.1K to 150K	2.53	2.03	1.90	1.77
		150.1K to 175K	2.79	2.21	2.07	1.93
		175.1K to 225K	2.95	2.43	2.28	2.13
		225.1K to 273K	3.32	2.67	2.51	2.37

COMMERCIAL WIREWOUND RESISTORS

SERIES CW COMMERCIAL WIREWOUND RESISTORS

Completely welded construction and high temperature silicone coating. Temperature range, −55° C to +350° C. Temperature coefficient, ±50 ppm/°C, except on low values. Units meet or exceed MIL-R-26E requirements.

Dale Type and Ohmic Limit	Resistance Range, Ohms	Net Each, Lots of			
		1-24	25-49	50-99	100-249
CW-2 1 to 18 K **CW-2A** 1 to 16K **CW-2B** 1 to 9K **CW-2C** 1 to 12K	1 to 10	$0.82	$0.53	$0.48	$0.45
	10.1 to 1K	.71	.42	.40	.35
	1.1K to 5K	.73	.43	.41	.38
	5.1K to 15K	.81	.48	.45	.41
	15.1K to 18K	.84	.50	.46	.43
CW-5 1 to 35K	1 to 10	.94	.56	.53	.48
	10.1 to 1K	.73	.43	.41	.38
	1.1K to 5K	.81	.48	.45	.41
	5.1K to 15K	.87	.53	.48	.45
	15.1K to 25K	.94	.56	.52	.48
	25.1K to 35K	.98	.59	.55	.50

Dale Type and Ohmic Limit	Resistance Range, Ohms	Net Each, Lots of			
		1-24	25-49	50-99	100-249
CW-7 1 to 60K	1 to 10	$1.06	$0.64	$0.59	$0.55
	10.1 to 1K	.81	.48	.45	.41
	1.1K to 5K	.84	.50	.47	.43
	5.1K to 15K	.94	.56	.53	.48
	15.1K to 25K	1.06	.64	.59	.55
	25.1K to 60K	1.14	.71	.64	.59
CW-10 1 to 100K	1 to 10	1.29	.77	.73	.65
	10.1 to 1K	1.08	.65	.61	.56
	1.1K to 5K	1.12	.66	.62	.57
	5.1K to 15K	1.17	.73	.65	.62
	15.1K to 25K	1.28	.77	.73	.65
	25.1K to 50K	1.43	.86	.79	.74
	50.1K to 100K	1.60	.96	.89	.82

Our Stocks are Complete and up to date.

Write for information on new or unlisted items.

DALE

Established Reliability Metal-Film Resistors

DALE

MIL-R-55182, DALE TYPE ERC
COATED METAL-FILM RESISTORS—ESTABLISHED RELIABILITY

- Meet requirements of MIL-R-55182.
- Very low noise.
- Controlled temperature coefficient.
- Excellent high-frequency performance.
- Proprietary epoxy coating for superior moisture protection.
- Standard lead supplied is both solderable and weldable.
- 100% stabilization and screening tests.
- Traceability of materials and processing.
- Monthly acceptance testing.
- Verified failure rate.
- Type ERC includes MIL types RNC, RNR and RNN. Standard resistance tolerances are 0.1% (B), 0.5% (D) and 1.0% (F).

RNCXX	X	XXXX	X	X
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ

Ⓐ **Style**

Ⓑ **Temp. Characteristic**

H = 50 ppm
J = 25 ppm
K = 100 ppm

Ⓒ **Resistance Code**

Ⓓ **Tolerance**

F = ±1%
D = ±0.5%
B = ±0.1%

Ⓔ **Failure Rate**

M = 1%
P = 0.1%
R = 0.01%
S = 0.001%

SPECIFICATIONS

Dale No.	MIL No.	70° C Rating Watts	125° C Rating Watts	Max. Working Volts	Nominal Size, Inches			Resistance Range, Ohms		
					Body		Lead Diam.	T-1(K)	T-2(H)	T-9(J)
					Diam.	Length				
ERC 50	RNC50	1/10	1/20	200	.070	.244	.016	10Ω-796K	10Ω-796K	10Ω-796K
ERC 55	RNC55	1/8	1/10	200	.091	.325	.025	20Ω-1.21M	20Ω-1.21M	20Ω-1.21M
ERC 60	RNC60	1/4	1/8	250	.145	.475	.025	24.9Ω-3.01M	24.9Ω-3.01M	24.9Ω-3.01M

PRICING FOR ±1% TOLERANCE TYPES ERC 50 (PRICE INCLUDES LACER PACKAGING)

Dale No. ERC	MIL No.	T.C. Code	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
50	RNC50K RNR50K	T-1 ±100 ppm	10Ω-49.8Ω	$10.80	$6.75	$4.20	$2.85
			49.9Ω-100K	3.92	2.45	1.47	.89
			101K-300K	7.20	4.50	2.80	1.90
			301K-796K	10.80	6.75	4.20	2.85
	RNC50H RNR50H	T-2 ±50 ppm	10Ω-49.8Ω	12.24	7.60	4.59	3.06
			49.9Ω-100K	4.08	2.55	1.53	1.02
			101K-300K	8.16	5.50	3.06	2.04
			301K-796K	12.24	7.60	4.59	3.06
	RNC50J RNR50J	T-9 ±25 ppm	10Ω-49.8Ω	23.60	14.00	8.68	5.88
			49.9Ω-100K	5.44	3.40	2.04	1.36
			101K-300K	11.80	7.00	4.34	2.94
			301K-796K	23.60	14.00	8.68	5.88

PRICING ADDERS

Dale No. ERC	MIL No.	Tolerance	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
. . .	. . .	0.1% adder	10Ω-49.8Ω	$4.35	$3.06	$2.40	$1.86
			49.9Ω-200K	1.45	1.02	.80	.58
			201K-796K	4.35	3.06	2.40	1.86
. . .	. . .	0.5% adder	10Ω-49.8Ω	1.50	1.14	.84	.60
			49.9Ω-200K	.50	.38	.28	.20
			201K-796K	1.50	1.14	.84	.60
. . .	RNN*	. . .	10Ω-49.8Ω	4.40	3.12	2.48	1.76
			49.9Ω-200K	2.20	1.56	1.24	.88
			201K-796K	4.40	3.12	2.48	1.76

*Gold-plated nickel terminals.

PRICING FOR ±1% TOLERANCE TYPE ERC 55 (PRICING INCLUDES LACER PACKAGING)

Dale No. ERC	MIL No.	T.C. Code	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
55	RNC55K RNR55K	T-1 ±100 ppm	10Ω-49.8Ω	$8.40	$5.25	$3.15	$2.10
			49.9Ω-301K	2.80	1.75	1.05	.70
			302K-600K	5.60	3.50	2.10	1.40
			601K-1.21M	8.40	5.25	3.15	2.10
	RNC55H RNR55H	T-2 ±50 ppm	10Ω-49.8Ω	7.20	4.50	2.70	1.80
			49.9Ω-301K	2.40	1.50	.90	.60
			302K-600K	4.80	3.00	1.80	1.20
			601K-1.21M	7.20	4.50	2.70	1.80
	RNC55J RNR55J	T-9 ±25 ppm	10Ω-49.8Ω	12.80	8.00	4.80	3.20
			49.9Ω-301K	3.20	2.00	1.20	.80
			302K-600K	6.40	4.00	2.40	1.60
			601K-1.21M	12.80	8.00	4.80	3.20

PRICING ADDERS FOR TYPE ERC 55

Dale No. ERC	MIL No.	Tolerance	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
. . .	. . .	0.1% adder	10Ω-49.8Ω	$4.35	$3.06	$2.40	$1.20
			49.9Ω-301K	1.45	1.02	.80	.40
			302K-1.21M	4.35	3.06	2.40	1.20
. . .	. . .	0.5% adder	10Ω-49.8Ω	.75	.54	.42	.30
			49.9Ω-301K	.25	.18	.14	.10
			302K-1.21M	.75	.54	.42	.30
. . .	RNN*	. . .	10Ω-49.8Ω	4.40	3.12	2.48	1.76
			49.9Ω-301K	2.20	1.56	1.24	.88
			302K-1.21M	4.40	3.12	2.48	1.76

*Gold-plated nickel terminals.

PRICING FOR ±1% TOLERANCE TYPE ERC60

Dale No. ERC	MIL No.	T.C. Code	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
60	RNC60K RNR60K	T-1 ±100 ppm	10Ω-49.8Ω	$8.40	$5.25	$3.15	$2.10
			49.9Ω-499K	2.80	1.75	1.05	.70
			500K-1M	5.60	3.50	2.10	1.40
	RNC60H RNR60H	T-2 ±50 ppm	10Ω-49.8Ω	7.20	4.50	2.70	1.80
			49.9Ω-499K	2.40	1.50	.90	.60
			500K-1M	4.80	3.00	1.80	1.20
	RNC60J RNR60J	T-9 ±25 ppm	10Ω-49.8Ω	12.80	8.00	4.80	3.20
			49 9Ω-499K	3.20	2.00	1.20	.80
			500K-1M	6.40	4.00	2.40	1.60

PRICING ADDERS

Dale No. ERC	MIL No.	Tolerance	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
. . .	. . .	0.1% adder	10Ω-49.8Ω	$4.35	$3.06	$2.40	$1.20
			49.9Ω-499K	1.45	1.02	.80	.40
			500K-1M	4.35	3.06	2.40	1.20
. . .	. . .	0.5% adder	10Ω-49.8Ω	.75	.54	.42	.30
			49.9Ω-499K	.25	.18	.14	.10
			500K-1M	.75	.54	.42	.30
. . .	RNN*	. . .	10Ω-49.8Ω	4.40	3.12	2.48	1.76
			49.9Ω-499K	2.20	1.56	1.24	.88
			500K-1M	4.40	3.12	2.48	1.76

*Gold-plated nickel terminals.

DALE®

Established Reliability Film & Wirewound Resistors

DALE®

MIL-R-39017 PRECISION METAL-FILM RESISTORS
DALE TYPE EMF—ESTABLISHED RELIABILITY

- Meet requirements of MIL-R-39017
- Verified failure rate
- Very low noise
- Excellent high-frequency performance
- Epoxy-coated construction provides superior moisture protection
- Traceability of materials and processing
- Monthly lot acceptance testing

SPECIFICATIONS

Dale No.	MIL No.	Power Rating Watts	Max. Working Volts	Resistance Range
ERL-05	RLR05	1/8	200	10Ω-300K
ERL-07	RLR07	1/4	250	10Ω-2.49M
ERL-20	RLR20	1/2	350	4.3Ω-3.01M

DIMENSIONS

Dale No.	Body		Lead Diam.	Wt. Grams
	Length	Diam.		
ERL-05	.150″	.066″	.016″	.35
ERL-07	.250″	.090″	.025″	.35
ERL-20	.375″	.138″	.032″	.75

Dale No. ERL-	MIL No.	Tolerance	Resistance Range	Net Each, Lots of			
				1-9	10-24	25-49	50-99
05	RLR05 10Ω-300K	1%	10Ω-49.8Ω	$5.28	$3.78	$2.90	$2.28
			49.9Ω-150K	2.64	1.89	1.45	1.14
			151K-300K	5.28	3.78	2.90	2.28
	M, P & R	2% & 5%	10Ω-49.8Ω	4.38	3.14	2.40	1.90
			49.9Ω-150K	2.19	1.57	1.20	.95
			151K-300K	4.38	3.14	2.40	1.90
07	RLR07 10Ω-24.9M	1%	10Ω-300K	1.26	.90	.72	.54
			301K-1M	1.51	1.08	.86	.65
			1.01M-2.49M	3.78	2.70	2.16	1.62
	M, P & R 5%	2% & 5%	10Ω-300K	1.05	.75	.60	.45
			300K-1M	1.26	.90	.72	.54
			1.01M-2.49M	3.15	2.25	1.80	1.35
20	RLR20 4.3Ω-1 Meg	1%	4.3Ω-9.99Ω	3.78	2.70	2.16	1.62
			10Ω-499K	1.26	.90	.72	.54
			500K-1M	1.51	1.08	.86	.65
	M only	2% & 5%	4.3Ω-9.99Ω	3.15	2.25	1.80	1.35
			10Ω-499K	1.05	.75	.60	.45
			500K-1M	1.26	.90	.72	.54

PRECISION POWER WIREWOUND RESISTORS

MIL-R-39007, TYPE RWR, R LEVEL PRECISION POWER WIREWOUND RESISTORS
DALE TYPES ESS, ESW, EGS, EGW, ESN AND EGN
ESTABLISHED RELIABILITY, SILICONE COATED AND MOLDED

- Types ESS, EGS, ESN and EGN have solderable leads
- Types ESW and EGW have weldable leads
- Meet solvent resistance of MIL-STD-202, Method 215
- For lower failure rates, specify Dale Type ARS or AGS
- 100% power stabilization and screening test
- Traceability of materials and processing
- Non-inductive styles—ESN and EGN—prices on request
- Covered by U.S. Patent 3,295,090

Dale No.	MIL No.	Rating Watts	Nominal Size (Ins.)			Military Range		Dale Range (Non-Military)			
			Body Diam.	Body Lgth.	Lead Diam.	0.1%	0.5 & 1.0%	.05%	0.1%	0.25%	0.5, 1, 3 & 5%
EGS-1*	RWR-81S	1	.078	.250	.020	.499Ω-1K	.1Ω-1K	1Ω-1K	.499Ω-1K	.499Ω-3.4K	.1Ω-3.4K
EGW-1*	RWR-81W	1	.078	.250	.020	.499Ω-1K	.1Ω-1K	1Ω-1K	.499Ω-1K	.499Ω-3.4K	.1Ω-3.4K
EGN-1*	RWR-81N	1	.078	.250	.020	10Ω-499Ω	10Ω-499Ω	1Ω-500Ω	.499Ω-500Ω	.499Ω-1.7K	.1Ω-1.7K
EGS-2*	RWR-82S	1.5	.078	.312	.020	.499Ω-1.3K	.1Ω-1.3K	1Ω-1.3K	.499Ω-1.3K	.499Ω-4.9K	.1Ω-4.9K
EGW-2*	RWR-82W	1.5	.078	.312	.020	.499Ω-1.3K	.1Ω-1.3K	1Ω-1.3K	.499Ω-1.3K	.499Ω-4.9K	.1Ω-4.9K
EGS-3*	RWR-80S	2	.110	.422	.020	.499Ω-3.16K	.1Ω-3.16K	1Ω-2.7K	.499Ω-3.16K	.499Ω-10.4K	.1Ω-10.4K
EGW-3*	RWR-80W	2	.110	.422	.020	.499Ω-3.16K	.1Ω-3.16K	1Ω-2.7K	.499Ω-3.16K	.499Ω-10.4K	.1Ω-10.4K
EGN-3*	RWR-80N	2	.110	.422	.020	10Ω-1.58K	1Ω-1.35K	1Ω-1.35K	.499Ω-1.58K	.499Ω-5.2K	.1Ω-5.2K
ESS-2A	RWR-71S	2	.187	.812	.032	.499Ω-12.1K	.1Ω-12.1K	.499Ω-11.4K	.499Ω-11.4K	.1Ω-42.1K	.1Ω-42.1K
ESW-2A	RWR-71W	2	.187	.812	.032	.499Ω-12.1K	.1Ω-12.1K	.499Ω-11.4K	.499Ω-11.4K	.1Ω-42.1K	.1Ω-42.1K
ESN-2A	RWR-71R	2	.187	.812	.032	10Ω-6.04K	10Ω-6.04K	.499Ω-5.7K	.499Ω-5.7K	.1Ω-21.05K	.1Ω-21.05K
ESS-2B	RWR-89S	3	.187	.560	.032	.499Ω-4.12K	.1Ω-4.12K	.499Ω-6.5K	.499Ω-6.5K	.1Ω-24.5K	.1Ω-24.5K
ESW-2B	RWR-89W	3	.187	.560	.032	.499Ω-4.12K	.1Ω-4.12K	.499Ω-6.5K	.499Ω-6.5K	.1Ω-24.5K	.1Ω-24.5K
ESN-2B	RWR-89N	3	.187	.560	.032	10Ω-2.05K	10Ω-2.05K	.499Ω-3.25K	.499Ω-3.25K	.1Ω-12.25K	.1Ω-12.25K
ESS-5	RWR-74S	5	.312	.875	.040	.499Ω-12.1K	.1Ω-12.1K	.499Ω-24.5K	.499Ω-24.5K	.1Ω-91K	.1Ω-91K
ESW-5	RWR-74W	5	.312	.875	.040	.499Ω-12.1K	.1Ω-12.1K	.499Ω-24.5K	.499Ω-24.5K	.1Ω-91K	.1Ω-91K
ESN-5	RWR-74N	5	.312	.875	.040	10Ω-6.04K	10Ω-6.04K	.499Ω-12.2K	.499Ω-12.2K	.1Ω-45.5K	.1Ω-45.5K
EGS-10	RWR-84S	7	.312	.875	.040	.499Ω-12.4K	.1Ω-12.4K	.499Ω-24.5K	.499Ω-24.5K	.1Ω-91K	.1Ω-91K
EGN-10	RWR-84W	7	.312	.875	.040	10Ω-6.19K	10Ω-6.19K	.499Ω-12.2K	.499Ω-12.2K	.1Ω-45.5K	.1Ω-45.5K
EGW-10	RWR-84W	7	.312	.875	.040	.499Ω-12.4K	.1Ω-12.4K	.499Ω-24.5	.499Ω-24.5K	.1Ω-91K	.1Ω-91K
ESS-10	RWR-78S	10	.375	1.780	.040	.499Ω-39.2K	.1Ω-39.2K	.499Ω-71.5K	.499Ω-71.5K	.1Ω-265K	.1Ω-265K
ESW-10	RWR-78W	10	.375	1.780	.040	.499Ω-39.2K	.1Ω-39.2K	.499Ω-71.5K	.499Ω-71.5K	.1Ω-265K	.1Ω-265K
ESN-10	RWR-78N	10	.375	1.780	.040	10Ω-19.6K	10Ω-19.6K	.499Ω-35.7K	.499Ω-35.7K	.1Ω-132.5K	.1Ω-132.5K

*Molded; all others conformal coated.

PRICING FOR ±1% TOLERANCE TYPES EGS AND EGW

Dale No.	MIL No.	Resistance Range	Net Each, Lots of		
			1-24	25-49	50-99
EGS-1 EGW-1	RWR-81S RWR-81W	0.1Ω-0.499Ω	$5.19	$4.32	$3.62
		0.5Ω-10Ω	3.46	2.88	2.78
		10.1Ω-1K	2.58	2.29	2.19
EGS-2 EGW-2	RWR-82S RWR-82W	0.1Ω-0.499Ω	5.19	4.32	3.62
		0.5Ω-10Ω	3.46	2.88	2.78
		10.1Ω-1K	2.58	2.29	2.19
EGS-3 EGW-3	RWR-80S RWR-80W	0.1Ω-0.99Ω	3.46	2.88	2.78
		1.0Ω-10Ω	2.84	2.53	2.45
		10.1Ω-3K	2.58	2.29	2.19
EGS-10 EGW-10	RWR-84S RWR-84W	0.1Ω-0.99Ω	5.12	4.40	4.16
		1.0Ω-1K	3.57	3.11	2.96
		1.1K-5K	3.68	3.20	3.04
		5.1K-10K	3.79	3.29	3.12
		10.1K-12.4K	3.93	3.41	3.24

PRICING FOR ±1% TOLERANCE TYPES ESS AND ESW

Dale No.	MIL No.	Resistance Range	Net Each, Lots of		
			1-24	25-49	50-99
ESS-2B ESW-2B	RWR-89S RWR-89W	0.1Ω-0.49Ω	$2.76	$2.56	$2.13
		0.5Ω-0.99Ω	2.31	2.13	1.74
		1.0Ω-1K	1.63	1.30	.99
		1.1K-4.12K	1.71	1.38	1.04
ESS-5 ESW-5	RWR-74S RWR-74W	0.1Ω-0.49Ω	2.76	2.56	2.13
		0.5Ω-0.99Ω	2.31	2.13	1.74
		1.0Ω-1K	1.63	1.30	.99
		1.1K-5K	1.71	1.38	1.04
		5.1K-10K	1.75	1.40	1.06
		10.1K-12.1K	1.79	1.42	1.08
ESS-10 ESW-10	RWR-78S RWR-78W	0.1Ω-0.49Ω	3.31	3.07	2.56
		0.5Ω-0.99Ω	2.77	2.56	2.09
		1.0Ω-1K	1.96	1.56	1.19
		1.1K-5K	2.05	1.66	1.66
		5.1K-10K	2.10	1.68	1.27
		10.1K-15K	2.15	1.70	1.30
		15.1K-20K	2.20	1.73	1.32
		20.1K-39.2K	2.28	1.75	1.34

DALE TYPE HL TUBULAR POWER WIREWOUND RESISTORS

For inexpensively dissipating larger amounts of power in DC or low-frequency AC circuits.

Applications include: ■ Grid resistor ■ Voltage dropping resistor ■ High voltage bleeder resistor in power supplies ■ Bias supply resistor ■ Voltage divider networks ■ Filament dropping resistor ■ Load resistor ■ Shunt resistor

STANDARD TYPE SPECIFICATIONS

Dale Type	Rated Watts	Max. Resistance*	Max. Work. Volts	Standard Terminal Designations§	Mounting Hardware Options
HL-12	12	70K	500	05	101, 204, 301
HL-20	20	120K	880	02	101, 203, 301
HL-25	25	155K	1K	06	101, 203, 301
HL-50	50	385K	1.9K	06	101, 203, 301
HL-100	100	870K	2.5K	06	102, 206, 303
HL-175	175	1.7 M	5.2K	07	103, 205, 303
HL-225	225	2.1 M	6.1K	07	103, 205, 303

*Minimum resistance is 0.1 ohms, all models. §Consult factory for optional, non-standard terminals, including Quick-Disconnect types.

CORE DIMENSIONS

Dale Type	Length ±1/16 (1.59)	O.D.	I.D. ±1/32 (.79)
HL-12	1 3/4 (44.45)	5/16 (7.94)	3/16 (4.76)
HL-20	2 (50.80)	7/16 (11.11)	5/16 (7.94)
HL-25	2 (50.80)	9/16 (14.29)	5/16 (7.94)
HL-50	4 (101.60)	9/16 (14.29)	5/16 (7.94)
HL-100	6 1/2 (165.10)	3/4 (19.05)	1/2 (12.70)
HL-175	8 1/2 (215.90)	1 1/8 (28.58)	3/4 (19.05)
HL-225	10 1/2 (266.70)	1 1/8 (28.58)	3/4 (19.05)

5% Tolerance on or above 1 ohm values; 10% on values below 1 ohm.

Dale Type	*MIL Range MIL Type	Resistance Range	Net Each, Lots of			
			1-9	10-24	25-49	50-99
HL-12		0.1Ω-0.99Ω	$1.49	$1.36	$1.22	$1.12
		1.0Ω-100Ω	1.10	1.01	.88	.83
		101Ω-1K	1.15	1.07	.94	.88
		1.1K-2.5K	1.25	1.12	1.01	.92
		2.51K-5K	1.30	1.15	1.04	.96
		5.1K-10K	1.32	1.22	1.08	1.01
		10.1K-25K	1.46	1.31	1.15	1.10
		25.1K-50K	1.56	1.42	1.25	1.15
HL-20	RW-32 *0.1Ω-10K	0.1Ω-0.99Ω	1.43	1.29	1.17	1.07
		1.0Ω-250Ω	1.17	1.02	.92	.85
		250.1Ω-1K	1.21	1.07	.97	.90
		1.1K-5K	1.33	1.18	1.06	.98
		5.1K-15K	1.43	1.29	1.17	1.07
		15.1K-30K	1.54	1.36	1.22	1.16
		30.1K-50K	1.75	1.58	1.39	1.29
		50.1K-80K	1.81	1.63	1.44	1.36
HL-25		0.1Ω-0.99Ω	1.80	1.61	1.43	1.34
		1.0Ω-250Ω	1.38	1.25	1.10	1.03
		250.1Ω-1K	1.45	1.31	1.19	1.09
		1.1K-5K	1.56	1.39	1.25	1.19
		5.1K-10K	1.71	1.51	1.35	1.26
		10.1K-25K	1.80	1.61	1.43	1.34
		25.1K-50K	1.98	1.80	1.58	1.49
		50.1K-100K	2.14	1.94	1.73	1.61
HL-50		0.1Ω-0.99Ω	$2.33	$2.12	$1.87	$1.74
		1.0Ω-250Ω	1.87	1.70	1.54	1.43
		250.1Ω-1K	1.90	1.73	1.55	1.44
		1.1K-5K	2.11	1.87	1.68	1.56
		5.1K-15K	2.39	2.16	1.88	1.75
		15.1K-45K	2.57	2.30	2.04	1.90
		45.1K-75K	2.84	2.54	2.26	2.11
		75.1K-100K	3.02	2.74	2.45	2.29
		100.1K-125K	3.28	2.92	2.60	2.45
		125.1K-150K	3.44	3.12	2.75	2.58
		150.1K-200K	3.73	3.32	2.98	2.75
		200.1K-250K	3.78	3.43	3.02	2.87
HL-100		0.1Ω-0.99Ω	4.46	4.02	3.58	3.36
		1.0Ω-6Ω	3.97	3.58	3.18	2.98
		6.1Ω-1K	3.64	3.31	2.96	2.75
		1.1K-2.5K	3.94	3.42	3.13	2.96
		2.51K-5K	4.20	3.79	3.36	3.13
		5.1K-15K	4.31	3.86	3.43	3.20
		15.1K-25K	4.62	4.16	3.67	3.43
		25.1K-40K	5.02	4.50	4.01	3.74
		40.1K-100K	5.39	4.86	4.31	4.02
		100.1K-150K	5.58	5.05	4.45	4.20
		150.1K-200K	5.93	5.33	4.74	4.01
		200.1K-250K	6.38	5.76	5.12	4.78
		250.1K-300K	6.94	6.20	5.56	5.17
		300.1K-350K	7.34	6.62	5.88	5.50
		350.1K-425K	8.03	7.21	6.42	6.00
		425.1K-550K	8.54	7.72	6.83	6.42
HL-175		0.1Ω-0.99Ω	8.38	7.55	6.70	6.25
		1.0Ω-10Ω	7.29	6.58	5.84	5.44
		10.1Ω-50Ω	6.58	5.91	5.28	4.91
		50.1Ω-250Ω	6.31	5.65	5.04	4.69
		250.1Ω-1K	5.99	5.44	4.83	4.48
		1.1K-2.5K	6.44	5.79	5.13	4.83
		2.51K-6K	6.89	6.61	5.51	5.14
		6.1K-15K	7.51	6.76	5.99	5.64
		15.1K-35K	7.81	7.04	6.25	5.86
		35.1K-55K	8.36	7.55	6.70	6.25
		55 1K-100K	8.90	8.01	7.14	6.66
		100.1K-200K	9.71	8.75	7.79	7.26
		200.1K-300K	10.66	9.59	8.54	7.99
		300.1K-400K	11.49	10.35	9.19	8.60
		400.1K-500K	12.11	10.90	9.66	9.05
		500.1K-600K	12.69	11.43	10.15	9.43
		600.1K-700K	13.50	12.16	10.80	10.10
		700.1K-800K	14.85	13.35	11.88	11.10
		800.1K-900K	15.59	14.05	12.45	11.66
		900.1K-1.1M	17.14	14.75	13.11	12.28
HL-225	RW-47 *0.1Ω-160K	0.1Ω-0.99Ω	9.93	8.98	7.94	7.46
		1.0Ω-15Ω	8.55	7.69	6.81	6.36
		15.1Ω-75Ω	7.75	6.94	6.20	5.79
		75.1Ω-2.5K	7.36	6.64	5.88	5.51
		2.51K-5K	7.91	7.11	6.31	5.90
		5.1K-10K	8.20	7.38	6.56	6.13
		10.1K-35K	9.00	8.10	7.23	6.71
		35.1K-50K	9.15	8.39	7.48	7.00
		50.1K-100K	10.80	9.58	8.54	7.95
		100.1K-250K	11.66	10.18	9.31	8.71
		250.1K-325K	12.79	11.50	10.21	9.56
		325.1K-425K	13.24	11.94	10.60	9.91
		425.1K-550K	13.84	12.44	11.06	10.36
		550.1K-650K	14.53	13.05	11.61	10.85
		650.1K-750K	15.34	13.83	12.29	11.50
		750.1K-850K	17.08	15.41	13.68	12.79
		850.1K-925K	17.95	16.14	14.38	13.45
		925.1K-1M	19.01	17.13	15.19	14.23
		1.1M-1.2M	19.70	17.75	15.78	14.74
		1.21M-1.3M	20.99	18.90	16.80	15.70

FOR INDUSTRIAL ELECTRONIC EQUIPMENT AND PARTS,
WE CAN SUPPLY ALL YOUR REQUIREMENTS,
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DALE TYPE HL FLAT POWER WIREWOUND RESISTORS

FEATURES

- High power-to-size ratio.
- Mounting accommodations idealy suited to high density packaging.
- Self-stacking for horizontal or vertical placement.
- Withstands high vibration without loosening.
- Mountings function as heat sinks, allowing greater heat dissipation and less derating of stacked units.

FLAT TYPE SPECIFICATIONS

Dale Type	Rated Watts	Max. Resistance*	Max. Work. Volts	Standard Terminal Designations§
HL-24	30	55K	800 V	09
HL-35	40	135K	1.4 KV	09
HL-55	55	300K	1.8 KV	09
HL-95	95	550K	2.6 KV	09

*Minimum resistance is 0.1 ohm for all models. §Consult factory for optional, non-standard terminals, including Quick-Disconnect.

DIMENSIONS

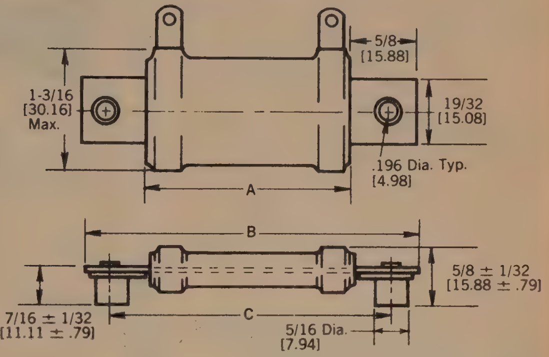
Dale Type	A ±1/16 (1.59)	B ±1/16 (1.59)	C ±1/32 (0.79)
HL-24	1 1/4 (31.75)	2 1/2 (63.50)	2 (50.80)
HL-35	2 (50.80)	3 1/4 (82.55)	2 3/4 (69.85)
HL-55	3 1/2 (88.90)	4 3/4 (120.65)	4 1/4 (107.95)
HL-95	6 (152.40)	7 1/4 (184.15)	6 3/4 (171.45)

DERATING STACK MOUNTED UNITS

No. of Resistors in Stack	Percent or Single Unit Rating		
	Miniature	Miniature With 1/4 (6.35) Spacer	Standard
2	72	80	70
3	61	73	60
4	51	64	50

5% Tolerance on or above 1 ohm values; 10% below 1 ohm.

Dale Type	*MIL Range MIL Type	Resistance Range	Net Each, Lots of			
			1-9	10-24	25-49	50-99
HL-24	RW-20 *0.1Ω-8.2K	0.1Ω-0.99Ω	$2.15	$1.95	$1.72	$1.62
		1.0Ω-100Ω	1.84	1.66	1.49	1.36
		100.1Ω-1K	1.87	1.69	1.51	1.41
		1.1K-5K	1.95	1.75	1.55	1.46
		5.1K-55K	2.00	1.80	1.61	1.51
HL-35	RW-21 *0.1Ω-16K	0.1Ω-0.99Ω	2.58	2.32	2.06	1.94
		1.0Ω-250Ω	2.17	1.97	1.74	1.63
		250.1Ω-1K	2.21	2.00	1.78	1.67
		1.1K-5K	2.32	2.08	1.86	1.74
		5.1K-10K	2.35	2.14	1.88	1.76
		10.1K-20K	2.42	2.18	1.91	1.84
		20.1K-35K	2.58	2.32	2.06	1.94



Dale Type	*MIL Range MIL Type	Resistance Range	Net Each, Lots of			
			1-9	10-24	25-49	50-99
HL-55	RW-22 *0.1Ω-36K	0.1Ω-0.99Ω	$3.35	$3.01	$2.68	$2.50
		1.0Ω-10Ω	2.89	2.60	2.32	2.16
		10.1Ω-250Ω	2.74	2.46	2.18	2.06
		250.1Ω-500Ω	2.77	2.50	2.21	2.08
		500.1Ω-1.5K	2.89	2.60	2.32	2.16
		1.51K-3.5K	3.00	2.69	2.41	2.24
		3.51K-7K	3.06	2.72	2.46	2.29
		7.1K-13K	3.19	2.88	2.56	2.41
		13.1K-20K	3.35	3.01	2.68	2.50
		20.1K-50K	3.50	3.16	2.78	2.62
		50.1K-75K	3.67	3.34	2.98	2.76
HL-95	RW-24 *0.1Ω-75K	0.1Ω-0.99Ω	4.50	4.04	3.61	3.35
		1.0Ω-10Ω	3.94	3.41	3.16	2.96
		10.1Ω-500Ω	3.62	3.30	2.90	2.72
		500.1Ω-1.1K	3.74	3.34	2.98	2.78
		1.11K-3K	3.94	3.41	3.16	2.96
		3.1K-12K	4.22	3.79	3.35	3.16
		12.1K-25K	4.61	4.12	3.65	3.43
		25.1K-45K	4.75	4.28	3.83	3.56
		45.1K-100K	5.22	4.72	4.19	3.90
		100.1K-150K	5.56	4.99	4.44	4.16

DALE TYPE HLM MINIATURE FLAT STYLE

MINIATURE TYPE SPECIFICATIONS

Dale Type	Rated Watts	Max. Resistance*	Maximum Working Volts	Standard Terminal Designations§
HLM-10	10	15K	300	10
HLM-20	20	65K	1000	10

*Minimum resistance is 0.1 ohm for all units. §Consult factory for optional, non-standard terminals.

DIMENSIONS

Dale Type	A ±1/16 (1.59)	B ±1/16 (1.59)	C ±1/64 (0.40)
HLM-10	.750 (19.05)	1.312 (33.32)	1.000 (25.40)
HLM-20	2.062 (52.37)	2.625 (66.68)	2.313 (58.75)

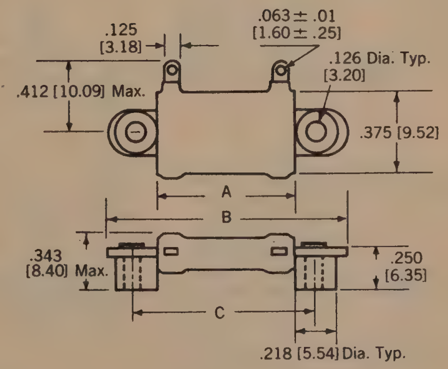
EXCLUSIVE BRACKET DESIGN

PATENT #3390367

Mounting strap fits snugly through core and is bound tightly against unit by two eccentric spacers; eliminates expensive cements and improves heat transfer and power handling capabilities.

5% Tolerance on or above 1 ohm values; 10% below 1 ohm.

Dale Type	*MIL Range MIL Type	Resistance Range	Net Each, Lots of			
			1-9	10-24	25-49	50-99
HLM-10		0.1Ω-0.99Ω	$1.51	$1.36	$1.21	$1.14
		1.0Ω-150Ω	1.25	1.14	1.01	.95
		150.1Ω-2 5K	1.28	1.18	1.02	.97
		2.51K-5K	1.37	1.20	1.08	1.02
		5.1K-15K	1.40	1.27	1.14	1.06

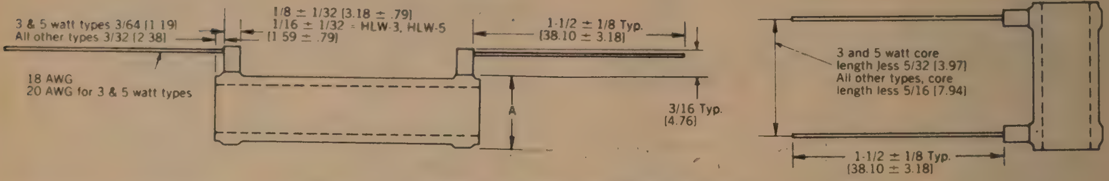


Dale Type	*MIL Range MIL Type	Resistance Range	Net Each, Lots of			
			1-9	10-24	25-49	50-99
HLM-20		0.1Ω-0.99Ω	$1.81	$1.64	$1.46	$1.35
		1.0Ω-150Ω	1.63	1.46	1.30	1.23
		150.1Ω-1K	1.66	1.50	1.34	1.26
		1.1K-2.5K	1.75	1.55	1.38	1.30
		2.5K-10K	1.85	1.66	1.48	1.38
		10.1K-20K	2.06	1.85	1.66	1.55
		20.1K-51K	2.40	2.16	1.93	1.80

Industrial Power Wirewound Resistors

DALE TYPE HLW TUBULAR AXIAL LEAD POWER WIREWOUND RESISTORS

Construction identical to HL Series, but with lug-attached leads to facilitate direct electrical connection by soldering.


3 & 5 watt types 3/64 [1 19]
All other types 3/32 [2 38]
1/8 ± 1/32 [3.18 ± .79]
1/16 ± 1/32 = HLW-3, HLW-5
[1 59 ± .79]
1-1/2 ± 1/8 Typ.
[38.10 ± 3.18]
18 AWG
20 AWG for 3 & 5 watt types
A
3/16 Typ.
[4.76]
3 and 5 watt core length less 5/32 [3.97]
All other types, core length less 5/16 [7.94]
1-1/2 ± 1/8 Typ.
[38.10 ± 3.18]

STANDARD TYPE SPECIFICATIONS

Dale Type	Wattage Rating	Max. Resistance*	Length ±1/16 (1.59)	Core O.D.	Core I.D. ±1/32 (0.79)	A (Max.)	Axial Terminal Designation	Radial Terminal Designation	Mounting Hardware
HLW-5	5 1/4	15K	5/8 (15.88)	1/4 (6.35)	1/8 (3.18)	11/32 (8.73)	A2	R2	—
HLW-6	8	25K	1 (25.40)	5/16 (7.94)	3/16 (4.76)	13/32 (10.32)	A1	R1	101, 204, 301
HLW-12	12	70K	1 3/4 (44.45)	5/16 (7.94)	3/16 (4.76)	13/32 (10.32)	A1	R1	101, 204, 301
HLW-20	20	120K	2 (50.80)	7/16 (11.11)	5/16 (7.94)	9/16 (14.29)	A1	R1	101, 203, 301

*Minimum resistance is 0.1 ohm for all models. Consult factory for higher values.

Resistance Tolerance: ±5% for 1 ohm and above; ±10% tolerance for values below 1 ohm.

Dale Type	Resistance Range, (Ohms)	Net Each, Lots of					
		1-9	10-49	50-99	100-249	250-499	500-999
HLW-5-A2Z	0.1 thru 0.99	$1.41	$1.20	$0.98	$0.84	$0.69	$0.64
	1.0 thru 1K	1.13	.95	.79	.66	.57	.53
	1.1K thru 5K	1.25	1.08	.89	.76	.61	.57
	5.1K thru 15K	1.30	1.10	.90	.78	.63	.59

Stocked Standard Values For HLW-5-A2Z: 1.0, 1.5, 2.0, 5.1, 10, 12, 33, 51, 100, 150, 200, 240, 390, 510, 8.2K, 10K, 15K.

HLW-6-A1Z	0.1 thru 0.99	$1.52	$1.30	$1.06	$0.91	$0.76	$0.69
	1.0 thru 1K	1.22	1.04	.86	.74	.60	.55
	1.1K thru 5K	1.30	1.10	.90	.78	.63	.58
	5.1K thru 25K	1.46	1.25	1.04	.88	.75	.66

Stocked Standard Values For HLW-6-A1Z: 1.0, 1.5, 2.0, 4.0, 5.0, 10, 20, 25, 50, 100, 125, 200, 250, 300, 400, 500, 1.2K, 1.5K, 2K, 2.5K, 3K, 5K, 6K, 10K, 20K, 25K.

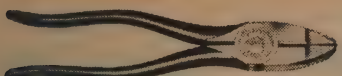
HLW-12-A1Z	0.1 thru 0.99	$1.81	$1.52	$1.25	$1.09	$0.90	$0.80
	1.0 thru 1K	1.25	1.08	.89	.76	.61	.57
	1.1K thru 5K	1.33	1.15	.92	.79	.66	.59
	5.1K thru 25K	1.81	1.52	1.25	1.09	.90	.80
	25.1K thru 70K	1.89	1.62	1.32	1.13	.94	.85

Stocked Standard Values For HLW-12-A1Z: 0.5, 1.0, 2.0, 3.0, 5.0, 10, 12, 15, 20, 25, 30, 40, 50, 75, 100, 125, 150, 200, 250, 300, 500, 1K, 1.2K, 1.5K, 2K, 2.5K, 3K, 4K, 5K, 6K, 7.5K, 8K, 10K, 15K, 20K, 25K, 30K, 50K.

HLW-20-A1Z	0.1 thru 0.99	$2.05	$1.76	$1.44	$1.23	$1.03	$0.91
	1.0 thru 1K	1.46	1.24	1.03	.87	.74	.65
	1.1K thru 5K	1.50	1.28	1.06	.90	.76	.66
	5.1K thru 25K	1.98	1.68	1.40	1.19	.98	.89
	25.1K thru 40K	2.13	1.82	1.49	1.28	1.08	.95
	40.1K thru 80K	2.50	2.09	1.74	1.48	1.24	1.12
	80.1K thru 120K	3.20	2.70	2.25	1.95	1.60	1.46

Stocked Standard Values For HLW-20-A1Z: 0.5, 1.0, 2.0, 3.0, 4.0, 5.0, 10, 25, 50, 100, 150, 200, 250, 300, 500, 650, 1K, 1.2K, 1.5K, 2K, 3K, 5K, 10K, 15K, 20K, 100K.

Klein Hand Tools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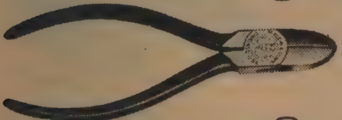
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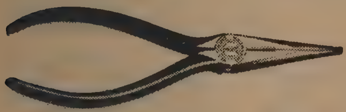
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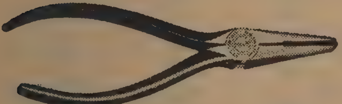
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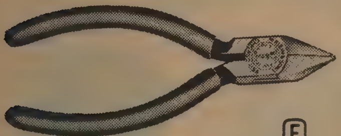
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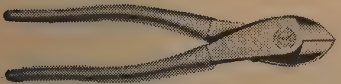
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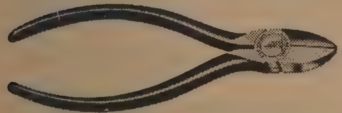
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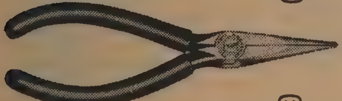
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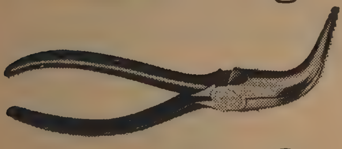
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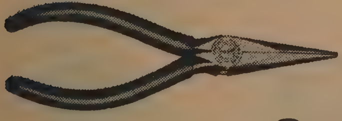
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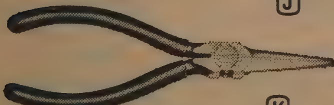
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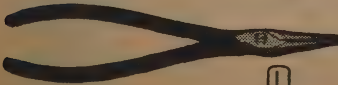
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STEEL FORGED PLIERS AND CUTTERS

DIPPED HANDLES

Klein pliers with prefix **D** have plastisol dipped handles; applied hot to assure tight fit with no twisting. **Colors:** Diagonal pliers, red; long nose, yellow; end cutting, green; side cutting, blue. Many models available with coil spring. Write for information.

No. 201-6NE (Fig. A)—6" streamlined side cutters. Net Each..................**$7.65**
No. 201-7NE—Same, but 7" long. Net.. **7.75**
No. 201-8NE—Same, but 8" long. Net.. **8.17**
No. 201-9NE—Same, but 9" long. Net.. **9.30**
No. D202-5 (Fig. B)—5" narrow nose oblique cutters. Red. Net Each..............**$6.12**
No. D202-6—6" version of above. Net.. **6.41**
No. D203-5 (Fig. C)—5" long nose side cutters. Yellow. Net Each..................**$6.73**
No. D203-6—6" version of above. Net.. **6.72**
No. D203-7—7" version of above. Net.. **6.95**
No. D224-4½ C (Fig. D)—4½" transverse end cutters. Coil spring. Midget pattern, semi-flush curring. Net Each.............**$8.21**
No. D209-4C (Fig. E)—4" pointed nose oblique cutters. Coil spring. Lightweight, flush cutting. Red. Net Each....................**$6.15**
No. D209-5—Same, but 5" long. Net... **6.90**
No. D228-8 (Fig. F)—8" high leverage oblique cutters. Red. Net Each.............**$6.75**
No. D245-5 (Fig. G)—5" oblique cutters. Red. Net Each.........................**$6.20**
No. D257-4 (Fig. G)—4" oblique cutters. Flush cutting, midget pattern. Red. Net Ea..**$5.66**
No. D301-5 (Fig. H)—5" long nose plier. Yellow. Net Each.........................**$5.55**
No. D301-6—Same, but 6" long. Net... **5.76**
No. D301-7—Same, but 7" long. Net... **5.98**
No. D302-6 (Fig. I)—6" curved nose plier. Yellow. Net Each..................**$7.59**
No. D307-5½ (Fig. J)—5½" slim, long nose plier. Yellow. Net Each.............**$5.46**
No. D310-6C (Fig. K)—6" slim, long nose plier. Coil spring. Yellow. Net Each...**$7.05**
No. D314-8 (Fig. L)—8" long nose plier, with knurl. Net Each...................**$6.59**
No. D318-5½ (Fig. M)—5½" long needle nose plier. Yellow. Net Each.............**$6.95**
No. D321-4½ (Fig. N)—Midget pattern, 4½" long nose plier. With knurl. Net Each.........................**$5.35**
No. D322-4½C—Same, but smooth jaws. Net Each.........................**$6.76**
No. D323-4½ (Fig. N)—4½" midget pattern flat nose plier, smooth inside jaws. Net Each.........................**$6.38**
No. D502-10 (Fig. O)—10" pump plier. Jaws positioned and locked by engaging tongue in proper groove. Wide bearing surface for solid grip. Polished sides, blued handles. With yellow handles. Net Each............**$6.95**
No. D502-12—Same, but 12" long. Net. **7.53**

ADJUSTABLE WRENCHES (FIG. P)

High quality drop-forged alloy steel for light weight, maximum strength. Chrome plated.

No. 500-4—4" wrench, ½" cap. Net....**$5.64**
No. 500-6—6" wrench, ¾" cap. Net.... **5.70**
No. 500-8—8" wrench, 15/16" cap. Net... **6.26**
No. 500-10—10" wrench, 1⅛" cap. Net. **8.12**
No. 500-12—12" wrench, 1 5/16" cap. Net. **11.06**

"CUSTOM" CUSHION GRIP SCREWDRIVERS (FIG. Q)

Exceptionally strong, made of carefully heat-treated alloy tool steel. Round shank. Shockproof, nonflammable amber plastic handle, firmly secured; chrome plated. Precision crossground point, bolstered blade. Rubber grip; comfortable cushioning action.

No. 601-3—3" x 3/16" blade. Net Each...**$2.04**
No. 601-4—4" x 3/16" blade. Net Each . **2.24**
No. 601-6—6" x 3/16" blade. Net Each... **2.39**
No. 601-8—8" x 3/16" blade. Net Each... **2.56**
No. 601-10—10" x 3/16" blade. Net Each. **2.96**

NUT DRIVER SET

Set of seven nut drivers in plastic bag. Comfortable cushion grip; shockproof, non-flammable handle. Hex and shank forged in one piece. Deep socket. **Sizes:** 3/16", ¼", 5/16", 11/32", ⅜", 7/16", ½".

No. 631—Net Each...............**$19.85**

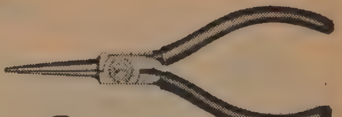
CLAW HAMMER (FIG. R)

Straight claw head of drop-forged, highly polished steel. Fiberglass handle, feels like hickory. Permanently bonded, cushion grip neoprene handle. Precision machined face and head; spring tempered shaft.

No. 808-16—Length, 14"; 14 oz. hammer. Net Each.........................**$10.74**

"XELA" KNIVES

No. 1550-2 Electrician's Knife (Fig. S)—High grade cutlery steel; plastic handle. Lock-open screwdriver blade. 3" long. Net Ea....**$6.70**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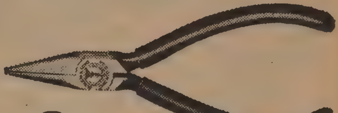
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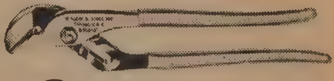
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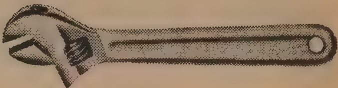
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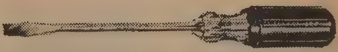
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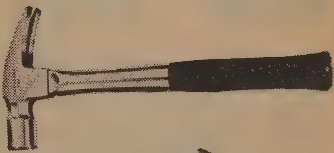
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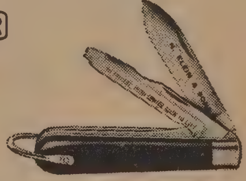
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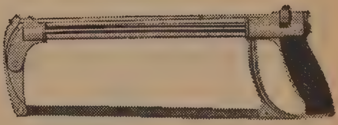
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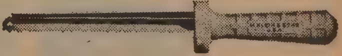
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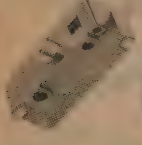
HACK AND JAB SAWS

No. 701-AL Hack Saw (Fig. T)—Sturdy, compact, cuts through to a flat surface; no projecting nuts or handle. Diecast aluminum frame, comfort grip handle. Comfortable front-end grip for two-hand operation. Storage chamber for extra blades. 16" long, 12" blade. Net Each.....................**$9.94**

SPACE DOES NOT PERMIT LISTING OF ALL RELATED COMPONENTS. WRITE FOR INFORMATION ON UNLISTED ITEMS.

McGILL® Snap-Action Switches

SERIES 2600 SPDT SNAP-ACTION SWITCHES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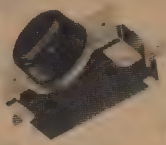
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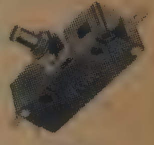

2609

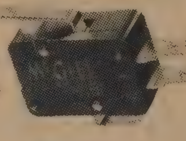
More precision for the price—less than .005″ differential travel. Less expensive than "high precision" switches often specified. Incorporates fewer parts to minimize points of friction and wear. Small differential travel requires less spring flexing, less chance of metal fatigue. Heavy-duty silver clad contacts for added wiping action and longer life. High-strength beryllium copper spring assures excellent mechanical life and conductivity. Melamine plunger resists wear. Quick-connect spade terminals are standard. Rugged case is of molded phenolic. Overlap housing construction resists dust, dirt and moisture. Choice of 8 actuator types. **Rated:** 20 amp at 125–250 VAC. 1 hp, 125 VAC; 2 hp, 250 VAC. **Size:** Case, 1$^{13}/_{16}$″ w. x $^{41}/_{64}$″ d. x $^{41}/_{64}$″ h. Overall width, including terminals, 2$^{9}/_{16}$″.

McGill No. SPDT	Actuator Type	Operating Force, Oz.	Release Force Min., Oz.	Movement Differential Max., In.	Pre-travel Max., In.	Total Overtravel Min., In.	Net Each
2601-1150	Basic plunger	20 max.	3	.005	.050	.050	$2.27
2602-1150	Large red pushbutton	16 approx.	....	....	....	.050	3.07
2603-1150	Rigid lever	4 max.	½	.025	.250	.250	2.49
2604-1150	Rigid lever with steel roller	4 max.	½	.025	.240	.240	3.22
2606-1150	Flexible lever	8 max.	2.5	.030	.230	.130	2.55
2607-1150	Flexible lever with steel roller	9 max.	3.0	.030	.210	.150	3.22
2609-1150	Steel overtravel plunger	20 max.	3	.005	.050	.225	3.35
2610-1150	Large black pushbutton	16 approx.	....	....	....	.050	3.07

SERIES 4600 AND SERIES 4700 SPDT MINIATURE SNAP-ACTION SWITCHES

4601, 4701

4602, 4702


4603, 4703

4604, 4704

4605, 4705

4606, 4706

Snap-action switches save space and still provide needed electrical capacity. Ideal for counters, timers, door interlocks, thermostats, valve controls, photocopy equipment, data processing equipment, calculators, recorders, record players, vending machines, and more. Excellent wiping action helps clean contacts and provides stability for long life, carrying heavy capacity current loads. Beryllium copper contact springs provide minimum flexing and low contact bounce. Ammonia-free, tight-fitting case provides maximum resistance to impact, vibration, dust, dirt and moisture, protects contact spring from corrosion and deterioration. Choice of spade quick-connect, or solder terminals. Series 4600 operating force, 6–14 oz. **Rated:** 15 amp at 125 VAC at load; ½ amp at 125 VDC; ¼ amp at 250 VDC. Series 4700, light operating force, 8 oz. and 75 gram max. **Rated:** 10 amp at 125–250 VAC; ⅓ hp at 125–250 VAC; 4 amp "L" at 125 VAC. Maximum movement differential plunger, .016″. **Size:** Case, 1$^{3}/_{32}$″ w. x $^{13}/_{32}$″ d. x ⅝″ h. Overall width, including terminals, 1$^{31}/_{64}$″.

McGill No.	Operating Force Max., Oz.	McGill No.	Light Operating Force Max., Oz.	Actuator Type	Net Each
4601-1100	14	4701-1100	8	Basic Plunger	$2.34
4602-1100	14	4702-1100	8	Short lever	2.65
4603-1100	6	4703-1100	4	Long lever	2.65
4604-1100	14	4704-1100	8	Short lever with roller	2.94
4605-1100	6.5	4705-1100	4	Long lever with roller	2.94
4606-1100	7	4706-1100	4	Simulated roller	2.65

METAL-CASED, SNAP-ACTION SWITCHES

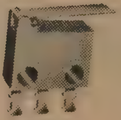
Metal-cased, snap-action switches for control and indicating circuits. Rated 20 amp at 125/250 VAC; 1 hp at 125 VAC; 10 amp at 125 VAC lamp load; 2 hp at 250 VAC; ½ amp at 125 VDC; ¼ amp at 250 VDC. Switch mounting is designated right-hand or left-hand by number according to the location of the actuator on the mounted switch. To specify left-hand mounting, change the 8th digit in part number from 0 to 2; prices are the same.

McGill No.	Description	Net Each
1503-0100	Sealed plunger	$21.50
1503-0300	Sealed roller plunger	37.23
1503-0350	Roller plunger	28.61
1503-0500	Wobble stick	30.97
1503-0600	Adjustable hand knob	32.05
1503-0700	Adjustable roller lever	27.43
1503-0800	Spring roller lever	30.97

SERIES 4900 WORLD'S SMALLEST SNAP-ACTION SWITCH

4901

4902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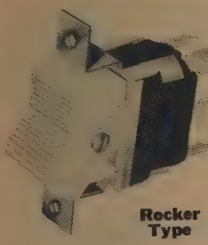
4904

4905

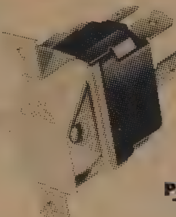
Fine silver contacts. Double turret terminals molded into case. **Rated:** 1 amp at 125–250 VAC; 1 amp resistive, 30 VDC; 1 amp inductive, 30 VDC. **Size:** Case, .300″ w. x .100″ d. x .250″ h.

McGill No. SPDT	Actuator Type	Operating Force	Net Each
4901-2100	Pin plunger	4 oz.	$10.35
4902-2100	Short lever	36 gm	12.10
4903-2100	Medium lever	31 gm	12.10
4904-2100	Long lever	20 gm	12.10
4905-2100	Formed lever	36 gm	12.10

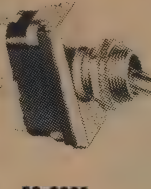
McGILL® ROCKER, PADDLE AND TOGGLE SWITCHES



Rocker Type



Paddle Type



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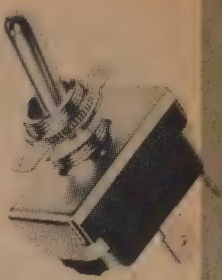


0111-0044, 1111-0009

20 AMP ROCKER AND PADDLE SWITCHES

Single pole and double pole rocker and paddle switches with distinctive styling and an extra margin of reliability with electrical capacity of 20 amps. Composite contacts of silver cadmium oxide toplay on special copper alloy. Cadmium plated steel coverplates. Impact-resistant case. White plastic rocker or paddle. Spade terminals. Offset coverplates, .375″, 1.625″ centered, 2-hole mounting. **Rated:** 20 amp at 277 VAC; 1½ hp at 125–250 VAC. **Size:** 1²⁹⁄₃₂″ w. x ⁵¹⁄₆₄″ d. x 1³³⁄₆₄″ h., overall.

ROCKER SWITCHES

McGill Number	Poles	Net Ea.	Circuit A	Circuit B	Circuit C	McGill Number	Double Poles	Net Ea.
0801-0310	SPST	**$3.10**	On	....	Off	**0811-0310**	DPST	**$4.20**
0801-0311	SPDT	**3.50**	On	Off	On	**0811-0311**	DPDT	**4.80**
0801-0312	SPDT	**3.50**	On	....	On	**0811-0312**	DPDT	**4.80**
0801-0313	SPST	**3.80**	On*	....	Off	**0811-0313**	DPST	**5.20**
0801-0314	SPDT	**4.10**	On*	Off	On*	**0811-0314**	DPDT	**5.75**
0801-0315	SPDT	**4.10**	On*	On	On	**0811-0315**	DPDT	**5.75**
0801-0316	SPDT	**4.10**	On*	Off	On	**0811-0316**	DPDT	**5.75**
0801-0317	SPST	**3.80**	On	....	Off*	**0811-0317**	DPST	**5.20**
0801-0318	SPDT	**4.29**	On*	....	On	**0811-0318**	DPDT	**5.85**

*Momentary.

PADDLE SWITCHES

Switch numbers listed above are for rocker switches. To order paddle switches, change the 5th digit from 0 to **2.** Example: 0801-2310. Same price.

20 AMP SINGLE-POLE TOGGLE SWITCHES

Single-pole, 20 amp toggle switches meet a wide variety of application requirements. Composite contacts of silver cadmium oxide toplay on special copper alloy. Features reliable detent-action mechanism. Impact-resistant case protects switch from dirt, dust and moisture. Nickel-plated, die-cast zinc cover plate. Choice of spade, screw or solder terminals. **Rated:** 20 amps at 125 VAC; 10 amps at 250 VAC; 20 amps at 250 VAC noninductive; 1 hp at 125–250 VAC. UL Listed, CSA Approved. **Size:** 1¹¹⁄₆₄″ w. x ⅝″ d. x 2⁷⁄₆₄″ h., overall.

WITH SCREW TERMINALS

McGill No. Screw Terminals	Circuit Arrangement A	B	C	Poles	Net Each
90-0001	On	....	Off	SPST	**$3.00**
91-0001	On	Off	On	SPDT	**3.50**
92-0001	On	....	On	SPDT	**3.50**
93-0001	On*	Off	On*	SPDT	**4.80**
93-1001	On	Off	On*	SPDT	**4.80**
93-2001	Off*	....	On	SPST	**4.55**
93-3001	On*	....	Off	SPST	**4.55**
93-4001	On	....	On*	SPDT	**4.80**

WITH SOLDER OR SPADE TERMINALS

McGill Number Solder Terminals	McGill Number Spade Terminals	Circuit Arrangement A	B	C	Poles	Net Each
90-0002	**90-0003**	On	......	Off	SPST	**$2.60**
91-0002	**91-0003**	On	Off	On	SPDT	**2.95**
92-0002	**92-0003**	On	......	On	SPDT	**2.95**
93-0002	**93-0003**	On*	Off	On*	SPDT	**4.20**
93-1002	**93-1003**	On	Off	On*	SPDT	**4.20**
93-2002	**93-2003**	Off*	......	On	SPST	**4.00**
93-3002	**93-3003**	On*	......	Off	SPST	**4.00**
93-4002	**93-4003**	On	......	On*	SPDT	**4.20**

*Momentary.

6 AMP DOUBLE-POLE TOGGLE SWITCHES

Double-pole toggle switches have silver copper contacts, general-purpose molded phenolic housings. Choice of screw, solder or spade terminals. **Rated:** 6 amp at 125 VAC; 3 amp at 250 VAC; ¼ hp at 125–250 VAC. **Size:** 1¹⁵⁄₆₄″ w. x ⁵¹⁄₆₄″ d. x 2⁷⁄₃₂″ h., overall. ¹⁵⁄₃₂″-32 thd. UL Listed, CSA Approved.

WITH SCREW TERMINALS

McGill Number Screw Terminals	Circuit Arrangement A	B	C	Poles	Net Each
1111-0001	On	......	Off	DPST	**$4.05**
1111-0002	On	Off	On	DPDT	**4.80**
1111-0003	On	......	On	DPDT	**4.80**
1111-0004	On*	Off	On*	DPDT	**7.15**
1111-0005	On*	......	Off	DPST	**6.05**
1111-0006	On	......	On*	DPDT	**6.65**
1111-0007	On	Off	On*	DPDT	**6.65**

*Momentary.

6 AMP DOUBLE-POLE TOGGLE SWITCHES (CONT'D)

WITH SOLDER OR SPADE TERMINALS

McGill Number Solder Terminals	McGill Number Spade Terminals	Circuit Arrangement A	B	C	Poles	Net Each
1111-0017	**1111-0009†**	On	.....	Off	DPST	**$3.30**
1111-0018	**1111-0010**	On	Off	On	DPDT	**3.75**
1111-0019	**1111-0011**	On	.....	On	DPDT	**3.75**
1111-0020	**1111-0012**	On*	Off	On*	DPDT	**6.85**
1111-0021	**1111-0013**	On*	.....	Off	DPST	**5.35**
1111-0022	**1111-0014**	On	.....	On*	DPDT	**5.75**
1111-0023	**1111-0015**	On	Off	On*	DPDT	**5.75**

*Momentary. †Net Price **$1.69.**

20 AMP 2, 3, AND 4-POLE TOGGLE SWITCHES

Toggle switches have silver cadmium oxide contacts, general-purpose molded phenolic housings. Choice of screw, solder or spade terminals. **Rated:** 20 amp at 277 VAC; 1½ hp at 125–250 VAC. **Size:** 1¹⁵⁄₆₄″ w. x ⁵¹⁄₆₄″ d. x 2⁷⁄₃₂″ h., overall. ¹⁵⁄₃₂″-32 thread. UL Listed, CSA Approved.

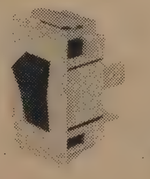
WITH SCREW TERMINALS

McGill Number Screw Terminals	Circuit Arrangement A	B	C	Poles	Net Each
0111-0001	On	....	Off	DPST	**$4.55**
0111-0002	On	Off	On	DPDT	**5.65**
0111-0003	On	....	On	DPDT	**5.65**
0111-0004	On*	Off	On*	DPDT	**9.00**
0111-0005	On*	....	Off	DPST	**7.15**
0111-0006	On	....	On*	DPDT	**8.50**
0111-0007	On	Off	On*	DPDT	**8.50**
0111-0043	Off*	....	On	DPST	**7.15**
0140-3020	On	....	Off	3PST	**8.75**
0140-3023	On	Off	On	3PDT	**11.10**
0140-4020	On	....	Off	4PST	**11.50**
0140-4023	On	Off	On	4PDT	**14.30**

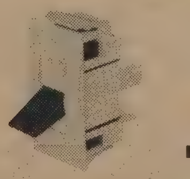
WITH SOLDER OR SPADE TERMINALS

McGill Number Solder Terminals	McGill Number Spade Terminals	Circuit Arrangement A	B	C	Poles	Net Each
0111-0017	**0111-0009**	On	.....	Off	DPST	**$3.85**
0111-0018	**0111-0010**	On	Off	On	DPDT	**4.60**
0111-0019	**0111-0011**	On	.....	On	DPDT	**4.60**
0111-0020	**0111-0012**	On*	Off	On*	DPDT	**7.95**
0111-0021	**0111-0013**	On*	.....	Off	DPST	**6.35**
0111-0022	**0111-0014**	On	.....	On*	DPDT	**7.40**
0111-0023	**0111-0015**	On	Off	On*	DPDT	**7.40**
0111-0045	**0111-0044**	Off*	.....	On	DPST	**6.50**
0140-3010	**0140-3000**	On	.....	Off	3PST	**7.55**
0140-3013	**0140-3003**	On	Off	On	3PDT	**9.30**
0140-4010	**0140-4000**	On	.....	Off	4PST	**10.35**
0140-4013	**0140-4003**	On	Off	On	4PDT	**12.65**

SERIES 0805 MINIATURE SNAP-IN ROCKER AND PADDLE SWITCHES



Rocker Type



Paddle Type

High reliability for low cost. Mounts in 1.395″ x .720″ panel opening. White bezel with black rocker or paddle. Terminals, ¼″ spade type. **Rated:** 12 amp at 125 VAC; 6 amp at 250 VAC; ½ hp at 125–250 VAC.

McGill No.	Poles	Circuit Arrangement A	B	C	Actuator Type	Net Each
0805-1213	SPST	On	....	Off	Rocker	**$1.81**
0805-1253	SPDT	On	Off	On	Rocker	**2.50**
0805-1313	SPST	On	....	Off	Paddle	**1.97**
0805-1353	SPDT	On	Off	On	Paddle	**2.67**

MICRO SWITCH Toggle Switches

TL

TP

TW

SERIES TL PRECISION TOGGLE SWITCHES

Versatile toggle switches feature greater over-surface creepage and clearance distance; double silicon sealing (between cover and case as well as between bushing and toggle lever); integral terminals for stronger wiring connections; step construction for more space between terminals to reduce the possibility of shorting. Single hole bushing mounted. Meet MIL-S-3950 (Immersion) requirements. **Electrical Rating:** (†) Shown in rating table below. **Operating Temperature:** −85° to +160° F. **Contacts:** Silver cadmium oxide. **Toggle:** Standard; write for information and prices on pull-to-unlock types that prevent accidental toggle movement.

2-POSITION TOGGLE SWITCHES

No. of Poles	Micro Switch No.	Military Number MS-	Rating †	Circuit with Toggle At		★ List Price
				One Side	Other Side	
1	1TL1-2	24523-22	1	Off	On	$11.70
	1TL1-4	24523-29	2	Off*	On	11.70
	1TL1-6	24523-30	2	On*	Off	11.70
	1TL1-3	24523-23	1	On	On	11.70
	1TL1-8	24523-26	2	On*	On	11.70
2	2TL1-2	24524-22	3	Off	On	16.25
	2TL1-4	24524-29	4	Off*	On	16.25
	2TL1-6	24524-30	4	On*	Off	16.25
	2TL1-3	24524-23	3	On	On	16.25
	2TL1-8	24524-26	4	On*	On	16.25
4	4TL1-2	24525-22	5	Off	On	26.10
	4TL1-4	24525-29	6	Off*	On	26.10
	4TL1-6	24525-30	6	On*	Off	26.10
	4TL1-3	24525-23	5	On	On	26.10
	4TL1-8	24525-26	6	On*	On	26.10

3-POSITION TOGGLE SWITCHES

No. of Poles	Micro Switch No.	Military Number MS-	Rating †	Circuit with Toggle At‡			★ List Price
				One Side	Center	Other Side	
1	1TL1-1	24523-21	1	On	Off	On	$11.70
	1TL1-5	24523-31	2	On*	Off	On	11.70
	1TL1-7	24523-27	2	On*	Off	On*	11.70
	1TL1-21	24523-24	1	None	Off	On	13.40
	1TL1-31	24523-33	1	None	On	On	14.85
	1TL1-51	24523-32	2	None	On	On*	14.85
	1TL1-61	24523-28	2	On*	Off	None	13.40
2	2TL1-1	24524-21	3	On	Off	On	16.25
	2TL1-5	24524-31	4	On*	Off	On	16.25
	2TL1-7	24524-27	4	On*	Off	On*	16.25
	2TL1-21	24524-24	3	None	Off	On	18.00
	2TL1-31	24524-33	3	None	On	On	19.25
	2TL1-51	24524-32	4	None	On	On*	19.25
	2TL1-61	24524-28	4	On*	Off	None	18.10
	2TL1-10	27407-4	3	On	On	On	18.75
	2TL1-50	27407-5	4	On*	On	On	18.75
	2TL1-70	27407-6	4	On*	On	On*	18.75
4	4TL1-1	24525-21	5	On	Off	On	26.10
	4TL1-5	24525-31	6	On*	Off	On	26.10
	4TL1-7	24525-27	6	On*	Off	On*	26.10
	4TL1-21	24525-24	5	None	Off	On	27.75
	4TL1-31	24525-33	5	None	On	On	29.00
	4TL1-51	24525-32	6	None	On	On*	29.00
	4TL1-61	24525-28	6	On	Off	None	27.80
	4TL1-10	....	5	On	On§	On	28.50
	4TL1-50	27406-2	6	On*	On	On	28.50
	4TL1-70	....	6	On*	On§	On*	28.50
	4TL1-12	27406-1	5	On	On	On	28.50
	4TL1-72	27406-3	6	On*	On	On*	28.50

*Momentary positions; all others are maintained positions. †See rating chart below. ‡"None" indicates toggle lever is blocked from these positions, leaving only two usable positions. §Only two circuits are completed in this position; all other types complete 1 circuit per pole in "on" position.

SERIES TL AND TP ELECTRICAL RATINGS†

All ratings in amperes.

Code †	28 Volts DC			115 VDC	250 VDC	115 VAC, 60 and 400 Hz			230 VAC
	Ind.	Res.	Lamp	Res.	Res.	Ind.	Res.	Lamp	Res.
1	15	20	5	0.75	0.5	10	15	3	6
2	10	15	4	0.75	0.5	7	15	2	6
3	15	20	7	0.75	0.5	15	15	4	6
4	10	18	5	0.75	0.5	8	11	2	6
5	12	20	5	0.75	0.5	15	15	4	6
6	10	18	4	0.75	0.5	8	11	2	6

★WRITE OR CALL FOR QUANTITY DISCOUNTS

SERIES TP ROCKER-ACTUATED SWITCHES

Precision switches combine the advantages of toggle switch circuitry and current capacity with versatile pushbutton-type manual control and styling. **Buttons:** Transparent button accepts under-the-surface legend insert; Translucent button is ideal for edge lighting. **Mounting:** Flush Panel for low profile and edge lighting; Above Panel for distinctive appearance. 3-hole mtg. in .935″ x 1.510″ hole.

2-POSITION ROCKER BUTTON SWITCHES

No. of Poles	Rating †	Circuit with Button At		Micro Switch No. (Prices Below)			
				Flush Panel		Above Panel	
		One Side	Other Side	Translucent	Transparent	Translucent	Transparent
1	1	Off	On	1TP201-2	1TP12-2	1TP216-2	1TP4-2
	2	Off*	On	1TP201-4	....	....	....
	2	On*	Off	1TP201-6	1TP12-6	1TP216-6	1TP4-6
	1	On	On	1TP201-3	1TP12-3	1TP216-3	1TP4-3
	2	On*	On	1TP201-8	1TP12-8	1TP216-8	1TP4-8
2	3	Off	On	2TP201-2	2TP12-2	2TP216-2	2TP4-2
	4	Off*	On	2TP201-4	2TP12-4	2TP216-4	2TP4-4
	4	On*	Off	2TP201-6	2TP12-6	2TP216-6	2TP4-6
	3	On	On	2TP201-3	2TP12-3	2TP216-3	2TP4-3
	4	On*	On	2TP201-8	2TP12-8	2TP216-8	2TP4-8
4	5	Off	On	4TP201-2	4TP12-2	....	4TP4-2
	6	Off*	On	4TP201-4	4TP12-4	4TP216-4	....
	6	On*	On	4TP201-6	....	....	....
	5	On	On	4TP201-3	4TP12-3	4TP216-3	4TP4-3
	6	On*	On	4TP201-8	4TP12-8	4TP216-8	4TP4-8

3-POSITION ROCKER BUTTON SWITCHES

1TP is 1-pole switch; 2TP, 2-pole; 4TP, 4-pole.

Rating †	Circuit‡	Micro Switch No.			
		Flush Panel		Above Panel	
		Translucent	Transparent	Translucent	Transparent
1	On-Off-On	1TP201-1	1TP12-1	1TP216-1	1TP4-1
2	On*-Off-On	1TP201-5	1TP12-5	1TP216-5	1TP4-5
2	On*-Off-On*	1TP201-7	1TP12-7	1TP216-7	1TP4-7
1	N-Off-On	1TP201-21	1TP12-21	....	....
1	N-On-On	1TP201-31	1TP12-31	....	....
2	N-On-On*	1TP201-51	1TP12-51	1TP216-51	1TP4-51
2	On*-Off-N	1TP201-61	....	1TP216-61	....
3	On-Off-On	2TP201-1	2TP12-1	2TP216-1	2TP4-1
4	On*-Off-On	2TP201-5	2TP12-5	2TP216-5	2TP4-5
4	On*Off-On*	2TP201-7	2TP12-7	2TP216-7	2TP4-7
3	N-Off-On	2TP201-21	2TP12-21	2TP216-21	2TP4-21
3	N-On-On	2TP201-31	2TP12-31	2TP216-31	2TP4-31
4	N-On-On*	2TP201-51	2TP12-51	2TP216-51	2TP4-51
4	On*-Off-N	2TP201-61	2TP12-61	2TP216-61	2TP4-61
3	On-On-On	2TP201-10	2TP12-10	2TP216-10	2TP4-10
4	On*-On-On	2TP201-50	2TP12-50	2TP216-50	2TP4-50
4	On*-On-On*	2TP201-70	2TP12-70	2TP216-70	2TP4-70
5	On-Off-On	4TP201-1	4TP12-1	4TP216-1	4TP4-1
6	On*Off-On	4TP201-5	4TP12-5	....	4TP4-5
6	On*-Off-On*	4TP201-7	4TP12-7	4TP216-7	4TP4-7
5	N-Off-On	4TP201-21	4TP12-21	4TP216-21	4TP4-21
5	N-On-On	4TP201-31	....	4TP216-31	4TP4-31
6	N-On-On*	4TP201-51	....	4TP216-51	4TP4-51
6	On*-Off-N	4TP201-61	4TP12-61	4TP216-61	4TP4-61
5	On-On§-On	4TP201-10	4TP12-10	....	4TP4-10
6	On*-On-On	4TP201-50	4TP12-50	4TP216-50	4TP4-50
6	On*-On§-On*	4TP201-70	4TP12-70	4TP216-70	4TP4-70

*Momentary positions; all others are maintained positions. †See rating chart below left. ‡"N" indicates toggle lever is blocked from these positions, leaving only two usable positions. §Only two circuits are completed in this position; all other types complete 1 circuit per pole in "on" position.

PRICES FOR SERIES TP ROCKER SWITCHES

Prefix	List★▲	Prefix	List★▲	Prefix	List★▲
1TP1	$20.00	2TP1	$24.70	4TP1	$35.20
1TP12	16.60	2TP12	21.20	4TP12	31.55
1TP16	20.00	2TP16	24.70	4TP16	35.20
1TP4	16.60	2TP4	21.20	4TP4	31.55

▲Some versions slightly higher.

SERIES TW TOGGLE SWITCHES

Small in size, light in weight, with the versatility of larger toggle switches. Meet requirements of MIL-S-83731. Nickel-plated brass housing on high-dielectric thermoset plastic switching base. Molded-in plated terminals. With lockwasher, keying washer, two hex nuts. **Electrical Rating:** 5 amps resistive, 2 amps inductive, 1 amp lamp rating, at 115 VAC or 30 VDC. **Circuit:** Two-position switches have On-On circuit; three-position, On-Off-On. Two-pole switches have two separate SPDT circuits. Write for prices on pull-to-unlock 15/32″ bushing types only.

Positions	No. of Poles	With 1/4″ Bushing		With 15/32″ Bushing	
		Micro Number	List Price★	Micro Number	List Price★
2	1	1TW1-3	$10.75	11TW1-3	$15.70
2*	1	1TW1-8	11.80	11TW1-8	16.65
2	2	2TW1-3	13.40	12TW1-3	17.15
2*	2	2TW1-8	14.75	12TW1-8	18.30
3	1	1TW1-1	10.75	11TW1-1	16.05
3*	1	1TW1-5	11.55	11TW1-5	17.30
3†	1	1TW1-7	12.10	11TW1-7	18.30
3	2	2TW1-1	13.50	12TW1-1	17.40
3*	2	2TW1-5	14.65	12TW1-5	19.10
3†	2	2TW1-7	14.75	12TW1-7	19.65

*One momentary position. †Two momentary positions; all others are maintained positions.

MICRO SWITCH Basic Switches

TYPE "BZ" PRECISION 15-AMP SWITCHES

Basic Switch

Phenolic enclosed, general-purpose switches combine long life with accurate repeatability. SPDT contacts may be wired either normally-open or normally-closed. Momentary contacts. **Temperature Range:** −65° F to +180° F except as indicated. **UL and CSA Listed:** 15 amps at 125, 250 or 480 VAC; ⅛ hp, 125 VAC; ¼ hp, 250 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC. High temperature types (to +400° F) are rated 5 amps, 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC. **Terminals:** A2 type, bottom facing 6-32NC x .218″ screw with cup washers. **Mechanical Life:** 20 million operations. **Mounting:** Two .140″ dia. holes on 1″ centers for fixed position mounting. **Size:** 1.940″ w. x .687″ d. x .950″ h., less terminals. Types also available for applications requiring gold alloy contacts.

PIN PLUNGER ACTUATOR

Micro Switch Number	Recommended For—	Oper. Force, Oz.	Min. Rel. Force, Oz.	Min. Over-travel	List Price
BZ-2R-A2	Most applications	9–13	4	.005″	$4.50
BZ-2R24-A2	Temp. to +250° F	9–13	4	.005″	5.10
BZ-2R5551-A2	Dustproof, splash resistant seal	9–15	4	.005″	6.65
BZ-2R55-A2	Sealed construction	9–15	4	.005″	9.35
BZ-2RT04	Meet MIL-S-8805	9–13	6	.005″	5.75
BZ-2R05-A2	Varying humidity	9–13	4	.005″	5.35
BZ-2R244-A2	Temp. to +400° F	9–13	4	.005″	5.75

OVERTRAVEL PLUNGER ACTUATOR

BZ-2RD-A2	For 20° rise cams	9–13	4	.060″	$ 5.75
BZ-2RDS5551-A2	Dustproof, splash resistant seal	13–19	4	.060″	13.60
BZ-2RD24-A2	Temp. to +250° F	9–13	4	.060″	5.90
BZ-2RS-A2	In-line motion	9–13	4	.060″	5.75
BZ-2RS5551-A2	Dustproof, splash resistant seal	9–15	4	.060″	7.70
BZ-2RS24-A2	Temp. to +250° F	9–13	4	.060″	6.00
BZ-2RST04	Meet MIL-S-8805	9–13	6	.060″	8.50
BZ-2RQ-A2	In-line, slow 30° rise cams	9–13	4	.219″	8.05
BZ-2RQ24-A2	Temp. to +250° F	9–13	4	.219″	8.35
BZ-2RQ1-A2	As BZ-2RQ-A2 w/bshg. mount	9–13	4	.219″	9.60
BZ-2RQ1T04	Meet MIL-S-8805	9–13	6	.219″	9.60
BZ-2RQ124-A2	Temp. to +250° F	9–13	4	.219″	9.95
BZ-2RQ18-A2	Roller plunger, rapid 30° rise cams, slide operation	9–13	4	.140″	16.45
BZ-2RQ1824-A2	Temp. to +250° F	9–13	4	.140″	16.60
BZ-2RQ181-A2	Roller plunger	9–13	4	.140″	16.45

STRAIGHT LEVER ACTUATOR

BZ-2RW80-A2	2.5″ lever	2.5	0.50	.219″	$5.65
BZ-2RW84-A2	Lower force	1	0.125	.219″	5.65
BZ-2RW-A2	Repeatability	1–2.5	0.50	.188″	5.65
BZ-2RW899-A2	Adjustable from .670″ to .880″	2.5	0.50	.125″	7.10
BZ-2RW863-A2	6″ lever	1	....	.578″	6.00

STRAIGHT LEVER ACTUATOR (CONT'D)

Micro Switch Number	Recommended For—	Oper. Force, Oz.	Min. Rel. Force, Oz.	Min. Over-travel	List Price
BZ-2RWT04	Meet MIL-S-8805	1–3.25	0.75	.172″	$6.15
BZ-2RW824-A2	Temp. to +250° F	2.5	0.50	.219″	7.10
BZ-2RW8244-A2	Temp. to +400° F	2.5	0.50	.219″	7.70

ROLLER LEVER ACTUATOR

BZ-2RW822-A2	1.05″ roller lever	6	1.5	.094″	$7.10
BZ-2RW82224-A2	Temp. to +250° F	6	1.5	.094″	7.35
BZ-2RW82299-A2	Adjustable from 1.172″ to 1.203″	6	1.5	.040″	9.10
BZ-2RW80147-A2	1.05″ roller lever	6	1.5	.094″	5.85
BZ-2RW82-A2	1.90″ roller lever	3.5	0.75	.156″	7.10
BZ-2RW8224-A2	Temp. to +250° F	3.5	0.75	.156″	7.25
BZ-2RW8299-A2	Adjustable from 1.150″ to 1.240″	3.5	0.75	.085″	8.35
BZ-2RW80196-A2	1.90″ roller lever	3.5	0.75	.156″	5.85
BZ-2RW826-A2	One-way roller, .37″ dia. x .15″ w.	6	1.5	.094″	8.35
BZ-2RW825-A2	One-way roller, .19″ dia. x .19″ w.	8	1.5	.060″	8.35

FLEXIBLE LEAF ACTUATOR*

BZ-2RL-A2	Force & stability	5	0.50	.060″	$5.35
BZ-2RL5551-A2	Dustproof, splash resistant seal	7	0.50	.060″	7.30
BZ-2RLT04	Meet MIL-S-8805	5	0.50	.060″	6.85
BZ-2RL24-A2	Temp. to +250° F	5	0.50	.060″	5.65

FLEXIBLE LEAF WITH ROLLER ACTUATOR*

BZ-2RL2-A2	Force & stability	5	0.50	.060″	$6.50
BZ-2RL25551-A2	Dustproof, splash resistant seal	7	0.50	.060″	8.60
BZ-2RL224-A2	Temp. to +250° F	5	0.50	.060″	8.05
BZ-2RL2244-A2	Temp. to +400° F	5	0.50	.060″	9.85

*Overtravel values given are maximum.

TYPE "BA" PRECISION 20-AMP SWITCHES

Same size and appearance as "BZ' switches above, but higher current capacity. **UL Electrical Rating:** 20 amps at 125, 250 or 480 VAC; 10 amps, 125 VAC "L" (AC tungsten lamp load); ¼ amp, 250 VDC; ½ amp, 125 VDC; 1 hp, 125 VAC, 2 hp, 250 VDC. **Temperature Range:** −65° F to +180° F. **Contacts:** SPDT, momentary. **Mechanical Life:** 10 million operations. **Terminals:** A2 type, bottom facing 6-32NC x .218″ screw with cup washers.

PIN PLUNGER ACTUATOR

Micro Switch Number	Recommended For—	Oper. Force, Oz.	Min. Rel. Force, Oz.	Min. Over-travel	List Price
BA-2R24-A2	Temp. to +250° F	14–22	10	.010″	$5.10
BA-2R-A2	To 20 A load	14–22	10	.010″	4.65

OVERTRAVEL PLUNGER ACTUATOR

BA-2RB-A2	To 20 A load	14–22	10	.094″	$5.55
BA-2RQ1-A2	To 20 A load	14–22	10	.219″	9.60

STRAIGHT LEVER ACTUATOR

BA-2RV-A2	To 20 A load	2.5	0.50	.078″	$5.85

ROLLER LEVER ACTUATOR

Micro Switch Number	Recommended For—	Oper. Force, Oz.	Min. Rel. Force, Oz.	Min. Over-travel	List Price
BA-2RV22-A2	To 20 A load	6	1.5	.030″	$7.25
BA-2RV2-A2	To 20 A load	3.5	0.50	.060″	7.25

FLEXIBLE LEAF ACTUATOR*

BA-2RL-A2	To 20 A load	9	1	.062″	$5.40

FLEXIBLE LEAF WITH ROLLER ACTUATOR*

BA-2RL2-A2	To 20 A load	9	1	.060″	$6.65

TYPE "BM" 22-AMP AND "BE" 25-AMP PRECISION SWITCHES

Identical to "BZ" switches above in size and appearance, with special contact materials for higher electrical capacity. Type "BE" is ideal for motors, solenoids and tungsten lamps. **UL Electrical Ratings:** Type "BM" switches rated 22 amps, 125, 250 or 480 VAC; ¼ hp, 125 VAC; ½ hp, 250 VAC. Type "BE" switches rated 25 amps, 125, 250 or 480 VAC; 1 hp, 125 VAC; 2 hp, 250 VAC; pilot duty, 750 VA, 125 or 250 VAC. **Temperature Range:** −65° F to +180° F. **Mechanical Life:** "BM", 20 million operations; "BE", 10 million operations. **Terminals:** A2 type, bottom facing 6-32NC x .218″ screw with cup washers.

PIN PLUNGER ACTUATOR

BM-1R-A2	Up to 22 A load	7–10	4	.005″	$4.85
BE-2R-A4†	Up to 25 A load	14–22	10	.010″	5.35

OVERTRAVEL PLUNGER ACTUATOR

BE-2RB-A4†	Up to 25 A load	14–22	10	.094″	$ 5.90
BM-1RD-A2	Up to 22 A load	7–10	4	.060″	6.00
BM-1RS-A2	Up to 22 A load	7–10	4	.060″	6.00
BM-1RQ1-A2	Up to 22 A load	7–10	4	.219″	9.90
BM-1RQ18-A2	Up to 22 A load	7–10	4	.140″	16.80

STRAIGHT LEVER ACTUATOR

BM-1RW84-A2	Up to 22 A load	1	0.125	.219″	$5.90
BE-2RV-A4†	Up to 25 A load	2.5	0.50	.078″	7.35

ROLLER LEVER ACTUATOR

BM-1RW822-A2	Up to 22 A load	6	1.5	.094″	$7.30
BE-2RV22-A4†	Up to 25 A load	6	1.5	.030″	8.65
BM-1RW82-A2	Up to 22 A load	3.5	0.75	.156″	7.30
BE-2RV2-A4†	Up to 25 A load	3.5	0.50	.060″	7.80

FLEXIBLE LEAF ACTUATOR*

BE-2RL-A4†	Up to 25 A load	9	1	.062″	$6.35

FLEXIBLE LEAF WITH ROLLER ACTUATOR*

BE-2RL2-A4†	Up to 25 A load	9	1	.060″	$7.60

*Overtravel values given are maximum. †Terminals same as A2 except #8 screws.

WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH Basic Switches

TYPE "1SX" SUBMINIATURE BASIC SWITCHES

Smallest SPDT snap-action switches from Micro Switch. Withstand temperatures from −65° F to +250° F. Silver contacts unless otherwise listed. **Release Force:** 1 oz. min. **Pretravel:** .020″ max. **Overtravel:** .004″ min. **Operating Position:** .320″ ±.015″. **Mounting:** Accept pins or screws of .087″ max. dia. on .188″ centers. T and T2 terminals for wrap around soldering of lead wires. UL and CSA listed. **Size:** .500″ w. x .200″ d. x .350″ h. overall, less terminals. Write or phone for information covering Type 1SX switches with integral lever and auxiliary actuators.

Ref.	Electrical Data
A	5 amps res., 3 amps ind., sea level, 4 amps res., 2 amps ind., 50,000 feet, 28 VDC; 5 amps res. or ind., 115 VAC, 60 Hz. UL and CSA Listed: 5 amps, 250 VAC.
B	7 amps res., 4 amps ind., sea level, 7 amps res., 2.5 amps ind., 50,000 ft., 28 VDC. UL, CSA Listed: 7 amps, 250 VAC.
C	3.5 amps res., 2 amps ind., sea level, 3.5 amps res., 1.5 amps ind., 50,000 ft., 28 VDC. UL Listed: 7 amps, 250 VAC.
D	1 amp res., ½ amp ind., 28 VDC.
E	3 amps res., 2 amps ind., 28 VDC. UL Listed: 3 amps, 250 VAC.
F	7 amps res., 4 amps ind., 2.5 amps lamp load, sea level, 4 amps res., 2.5 amps ind., 2.5 amps lamp load, 50,000 ft., 28 VDC. 7 amps res., 7 amps ind., 2 amps lamp load, 115 VAC, 60 Hz, sea level.
G	1 amp res., 0.5 amp ind., sea level and 50,000 ft., 28 VDC. 1.5 amps res., 1 amp ind., sea level, 115 VAC, 60 Hz.
H	.010 amp res. and ind., sea level, 28 VDC.

STRAIGHT PLUNGER ACTUATOR

Micro Switch Number	Recommended For—	*	Max. Oper. Force	Max. Diff. Travel	List Price
11SX21-T	Most applications	A	5 oz.	.002″	**$5.30**
13SX21-T	Applications requiring gold contacts	D	5 oz.	.003″	**9.75**
17SX21-T	Varying humidity	A	5 oz.	.003″	**6.70**
11SX22-T	For sealed enclosures	A	5 oz.	.003″	**6.25**
1SX1-T	Up to 7 A load handling	B	5 oz.	.005″	**5.80**
2SX1-T	Lower force	B	3 oz.	.005″	**6.70**
1SX12-T	Reduced diff. travel	C	5 oz.	.002″	**6.70**
11SX1-T	Lowest diff. travel‡	E	5 oz.	.001″	**6.20**
12SX3-T	Lowest diff. travel§	H	5 oz.	.001″	**9.95**
1SX48-T	0.010 overtravel	B	5 oz.	.005″	**6.70**
21SX1-T	Varying humidity	B	5 oz.	.005″	**7.55**
3SX1-T	Applications requiring gold contacts	D	5 oz.	.005″	**9.70**
21SX39-T	Meet MIL-S-8805	F	5 oz.	.005″	**5.80**
21SX39-T2	+180° F max. use	F	5 oz.	.005″	**5.80**
23SX39-T	MIL-S-8805 gold con-	G	5 oz.	.005″	**9.70**
23SX39-T2	tacts, +180° F max.	G	5 oz.	.005″	**9.70**
4SX1-T	Temp. to +400° F	†	5 oz.	.005″	**6.70**
12SX2-T	Best reliability§	H	5 oz.	.003″	**9.15**
12SX1-T	Higher current rating§	D	5 oz.	.003″	**9.75**

*Electrical data reference. †Electrical data on request. ‡0.75 release force. §With bifurcated gold contacts.

TYPE "SM" SUBMINIATURE SWITCHES

SM series are slightly larger than the 1SX switches. SPDT circuitry; contacts are silver except as noted. **Operating Temp. Range:** −100° F to +180° F. **Mechanical Life:** 10,000,000 cycles, 95% survival for 11SM series. **Operating Force:** 3–5 oz. except as noted. **Release Force:** 1 oz. min. except 11SM701-T, 14 grams. Power load switching capability to 11 amps, VAC. Motor load handling capacity to ¼ hp, VAC. T terminals for wrap around soldering of lead wires; others available. Series 21SM284 meet MIL-S-8805 requirements. UL and CSA listed. **Mounting:** Accept pins or screws of .087″ max. dia. Write or phone for information covering SM switches with integral leaf and aux actuators.

Ref.	Electrical Data
J	5 amps res., 3 amps ind., sea level; 5 amps res., 2.5 amps ind., 50,000 ft., 28 VDC. UL Listed, 5 amps, 250 VAC.
K	UL Listed: 5 amps, 125 or 250 VAC.
M	UL Listed: 11 amps and ¼ hp, 125 or 250 VAC.
N	1 amp res., 0.5 amp ind., 30 VDC. UL Listed: 1 amp, 125 VAC.
P	1 amp res., 0.5 amp ind., 30 VDC. UL Listed: 1 amp, 125 VAC.
R	5 amps res., 3 amps ind., 2.4 amps lamp load, sea level, 5 amps res., 2.5 amps ind., 2.4 amps lamp load, 50,000 ft., 28 VDC. 5 amps res., 5 amps ind., 1.5 amps lamp load, 115 VAC, 60 Hz, sea level.
S	UL Listed: 4 amps, 250 VAC.

PIN PLUNGER ACTUATORS

Size: .781″ w. x .250″ d. x .565″ h., overall.

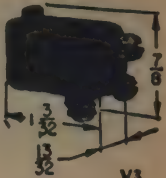
Micro Switch Number	Recommended For—	*	Max. Pre-travel	Min. Over-travel	List Price
11SM1-T	Most applications	J	.020″	.005″	**$2.45**
11SM3-T	Temp. to +250° F	J	.020″	.005″	**2.45**
11SM244-T	Temp. to +400° F	†	.020″	.005″	**3.60**
22SM1-T	Varying humidity	J	.020″	.005″	**3.50**
11SM401-T	Less differential travel‡	K	.020″	.005″	**5.10**
11SM701-T	Lower force§	S	.020″	.005″	**2.45**
41SM1-T	Up to 11 amps ¼ hp AC load handling	M	.030″	.005″	**4.15**
11SM23-T	Gold contacts	N	.020″	.005″	**6.50**
12SM4-T	Bifurcated gold contacts	P	.020″	.003″	**8.30**
411SM1	Sealed plunger#	. . .	.020″	.005″	**5.85**

*Electrical data reference. †Electrical data on request. Max. Operating Force: ‡3.5 oz.; §56 grams; #3–7.5 oz.

SX

SM

311SM



V3

PIN PLUNGER ACTUATORS (CONT'D)

Micro Switch Number	Recommended For—	*	Max. Pre-travel	Min. Over-travel	List Price
51SM1-T	Center plunger position†	J	.030″	.010″	**$4.15**
21SM284	Meet MIL-S-8805, solder terminals	R	.030″	.005″	**3.90**
21SM284-T2	Meet MIL-S-8805	R	.030″	.005″	**3.90**

*Electrical data reference. †Max. operating force, 2–5 oz.

INTEGRAL LEVER ACTUATORS

Electrical Data: 311SM1-T thru 311SM7-T, reference J; balance, reference S. **Size:** .781″ w. x .250″ d. x .586″ h., overall.

Micro Switch No.	*	Force, Grams		Max. Pre-travel	Min. Over-travel	Actu-ator Lgth.	List Price
		Max. Oper.	Min. Rel.				
311SM1-T	A	40	7	.085″	.011″	.285″	**$2.85**
311SM2-T	A	30	5	.120″	.015″	.565″	**2.85**
311SM3-T	A	15	2	.310″	.034″	1.765″	**2.90**
311SM4-T	B	40	7	.085″	.011″	.251″	**3.05**
311SM5-T	B	30	5	.120″	.015″	.535″	**3.05**
311SM6-T	C	40	7	.085″	.011″	.251″	**3.40**
311SM7-T	C	30	5	.120″	.015″	.535″	**3.40**
311SM701-T	A	16	3	.085″	.011″	.285″	**2.85**
311SM702-T	A	12	2	.120″	.015″	.565″	**2.85**
311SM703-T	A	6	1	.310″	.034″	1.765″	**2.90**
311SM704-T	B	16	3	.085″	.011″	.251″	**3.05**
311SM705-T	B	12	2	.120″	.015″	.535″	**3.05**
311SM706-T	C	16	3	.085″	.011″	.251″	**3.40**

*Actuator: A, lever; B, simulated roller lever; C, roller lever.

TYPE "V3" MINIATURE BASIC SWITCHES

SPDT circuitry; silver contacts unless otherwise noted. Power load switching capability up to 15 amps, motor handling capacity of ⅓ hp. Long mechanical life of 10,000,000 cycles, 95% survival for V3-100 series. **Pretravel Time:** .047″ max. **Overtravel Time:** .040″, min., except V3-1101-D8, V3-2101-D8, V3-3001-D8, .050″ min. UL and CSA Listed. Solder terminals except as noted; other types available. **Size:** 1.094″ w. x .400″ d. x .625″ h., less terminals. Write or phone for information covering "V3" switch with straight lever; roller lever, simulated roller and aux actuators.

Ref.	Electrical Data
T	10 amps res., 6 amps ind., 6 amps motor load, 3.6 amps lamp load, 30 VDC. UL and CSA Listed: 10 amps and ⅓ hp, 125 or 250 VAC, ½ amp, 125 VDC; ¼ amp, 250 VDC; 4 amps, 125 VAC "L" lamp load.
U	10 amps res., 10 amps ind., sea level, 6 amps ind., 50,000 ft., 6 amps motor load, 30 VDC. UL and CSA Listed: 15 amps and ⅓ hp, 125 or 250 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; 5 amps, 120 VAC "L" lamp load.
V	UL and CSA Listed: 10 amps and ¼ hp, 125 or 250 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC. 3 amps, 125 VAC "L" lamp load.
W	10 amps, 250 VAC or 28 VDC; ½ amp, 125 VDC; ¼ amp, 250 VDC.
X	UL Listed: 1 amp, 125 VAC.

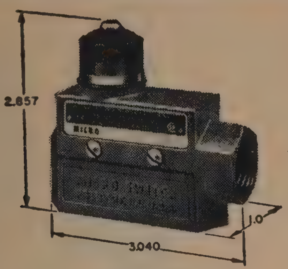
PLUNGER ACTUATORS

Micro Switch Number	Recommended For—	*	Max. Oper. Force	Min. Release Force	List Price
V3-101-D8	Most applications	T	8 oz.	2 oz.	**$1.75**
V3-101	General use, screw terminals	T	8 oz.	2 oz.	**2.60**
V3-1101-D8	Added overtravel	T	75 gms	10 gms	**1.75**
V3-2101-D8	Lowest force, added overtravel	V	50 gms	5 gms	**1.80**
V3-3001-D8	Lower force, up to 15 amps load handling	U	135 gms	15 gms	**2.00**
V3-1-D8	Up to 15 amps load handling	U	6–14 oz.	4 oz.	**2.00**
V3-1	Up to 15 amps load hndlg., screw term.	U	6–14 oz.	4 oz.	**2.85**
V3-154-D8	Less diff. travel	T	6 oz.	1 oz.	**1.85**
V3-343-D8	Gold alloy contacts	X	8 oz.	2 oz.	**3.45**
V3-1001	MIL-S-8805 application requirements	U	6–14 oz.	4 oz.	**3.90**
V3-1002†		U	6–14 oz.	4 oz.	**3.70**
V3-1003‡		U	6–14 oz.	4 oz.	**3.70**
V3-129§	Temp. to +302° F	T	8 oz.	2 oz.	**2.75**
V3-245§	Temp. to +400° F	W	10–25 oz.	6 oz.	**4.45**

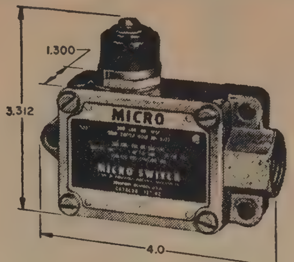
*Electrical data reference. †SPNC. ‡SPNO. §Actuators available on request.

WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH Limit & Enclosed Switches



"E6-V6"



"BAF1"

TYPES "E6" AND "V6" ENCLOSED SWITCHES

Extra convenient switches are interchangeable with older "E" and "V" types, but offer more flexible, utilitarian design. Easier access to terminals permits quick connection. Molded elastomer insulator-seal is bonded to inside of bottom housing. Available with or without actuator seal boots. Rugged cast aluminum housing. Temperature range, −25° to +160° F. **"E6"** indicates side mounting types; **"V6"** indicates bottom flange mounting.

SPDT MOMENTARY CONTACT TYPES

UL rated 15 amps at 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; ⅛ hp, 125 VAC; ¼ hp, 250 VAC. **Overtravel:** .219″ minimum except -2RQ8 and -2RQ81, .140″; -2RQ62, .838″.

Micro Switch Number BZE6- or BZV6-	Actuator	Oper. Force, Oz.	Max. Pre-travel	★ List Price
2RN	Plunger*	9–24	.078″	**$19.60**
2RN7#	Plunger*†	9–24	.078″	**20.00**
2RQ	Plunger	9–13	.015″	**15.05**
2RN80	Roller plunger*‡	9–24	.078″	**28.75**
2RQ8	Roller plunger§	9–13	.015″	**25.35**
2RQ81	Roller plunger#	9–13	.015″	**25.35**
2RN2	Roller arm*	10–20	.188″	**28.75**
2RQ2	Roller arm	10–18	.188″	**25.35**
2RN18*	Flexible rod	7 max.	15°	**31.40**
2RN28	1-way roller arm*	8–20	.234″	**33.85§**
2RN4	1.5″ dia. button*	10–20	.188″	**29.75**
2RQ62	Low-force rod	2–5	.718″	**25.35**

#**BZE6**—only. §**BZE6-2RN28** price; **BZV6-2RN28** price is **$33.25.**

DPDT MOMENTARY CONTACT TYPES

UL rated 10 amps, 125 or 250 VAC; 0.3 amp, 125 VDC; 0.15 amp, 250 VDC. **Overtravel:** -2RN, .125″ min.; -2RN2, .219″.

Micro Switch Number	Actuator	Oper. Force, Oz.	Max. Pre-travel	★ List Price
DTE6-2RN	Plunger*	26–59	.110″	**$42.90**
DTV6-2RN	Plunger*	26–59	.110″	**42.90**
DTE6-2RN2	Roller arm*	10–30	.266″	**50.50**
DTV6-2RN2	Roller arm*	10–30	.266″	**50.50**

SPDT MAINTAINED CONTACT TYPES

Rated 15 amps at 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; ¼ hp, 125 VAC; ½ hp, 250 VAC. **Overtravel:** .187″ minimum except -RN2X1 and -RQ2X2, .219″ minimum; -RQ8X2, .140″ minimum.

BZE6-RNX1	Plunger*	6–20	.078″	**$35.40**
BZV6-RNX1	Plunger*	6–20	.078″	**35.45**
BZE6-RQX2	Plunger	6–9.5	.012″	**27.70**
BZV6-RQX2	Plunger	6–9.5	.012″	**27.70**
BZE6-RN2X1	Roller arm*	16 max.	.188″	**46.20**
BZV6-RN2X1	Roller arm*	16 max.	.188″	**46.20**
BZE6-RQ2X2	Roller arm	10–18	.188″	**35.30**
BZV6-RQ2X2	Roller arm	10–18	.188″	**34.80**
BZE6-RQ8X2	Roller plunger‡	6–9.5	.012″	**40.05**

*Sealed against moisture and dirt with elastomer boot around actuator. †Side mounting only (prefix BZE6-) with #8 screws. ‡Roller parallel to long axis of switch (side mounting type only, prefix BZE6-). §Roller parallel to long axis of switch. #Cross roller plunger, perpendicular to long axis.

TYPE "F" HIGH CAPACITY, ENCLOSED SWITCHES

For applications requiring a small switch that will handle a large electrical load. Built-in overtravel mechanism insures repeatability. Basic switch sealed against moisture and dust by gasket between cover plate and housing. Actuators are sealed with elastomer boot (except roller plunger types). Aluminum housing with conduit type internally tapped ½″ hub. Mounts using three .265″ holes. Roller arm actuator (-2RN2) adjustable 360° horizontally, 225° vertically. One-way roller arm (-2RN28) adjustable 360° horizontally, 180° vertically. Flexible rod (-2RN18) operates from any direction except pull. Momentary contacts. Add Suffix **RH** for right-hand (location of actuator) or, **LH** for left-hand mounting.

SPDT 20-AMP TYPES

UL rated 20 amps, 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; 1 hp, 125 VAC; 2 hp, 250 VAC. Lamp load, 10 amps, 125 VAC.

Micro Switch Number*	Actuator	Max. Oper. Force	Max. Pre-travel	Min. Over-travel	★ List Price
BAF1-2RN	Plunger	2½ lbs.	.094″	.219″	**$36.75**
BAF1-2RN2	Roller arm	2 lbs.	.219″	.250″	**46.40**
BAF1-2RQ9	Roller plunger‡	2½ lbs.	.094″	.156″	**49.65**
BAF1-2RQN8	Roller plunger†	8 lbs.	.125″	.187″	**62.55**
BAF1-2RN28	1-way roller arm	2 lbs.	.219″	.250″	**53.15**
BAF1-2RN18	Flexible rod	....	15°	......	**53.05**
BAF1-2RN4	1½″ button	2 lbs.	......	......	**49.85**
BAF1-3RNX1	Reset plunger§	1.75 lbs.	.094″	.219″	**51.70**

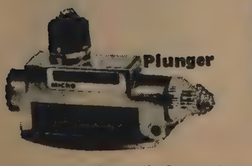
DPDT 10-AMP TYPES

UL rated 10 amps at 125 or 250 VAC; 0.3 amp, 125 VDC; 0.15 amp, 250 VDC.

DTF2-2RN	Plunger	2½ lbs.	.141″	.156″	**$57.25**
DTF2-2RN2	Roller arm	2½ lbs.	.312″	.219″	**68.20**

*Add suffix RH or LH, as indicated above. †O-ring actuator seal. ‡Plunger adjustable 360° horizontally. §Maintained contact switch with elastomer boots on both plungers (right-hand actuator position only).

BZG/BZH ENCLOSED SWITCHES



Roller Lever

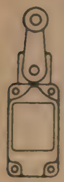
Completely sealed construction with a diecast aluminum housing form a NEMA 1 and 4 enclosure. SPST precision switching element is rated 15 amps at 125, 250 or 480 VAC. Choice of sturdy side and flange mounting. Sizes of side mount plunger models are: 3.391″ w. (single conduit), 3.902″ w. (double conduit) x 1.024″ d. x 3.022″ h.

Operating Characteristics	Model Type		
	Plunger	Rod Lever	Roller Lever
Operating Force	9–24 oz.	3–7 oz.	10–20 oz.
Release Force	4 oz. min.	1 oz. min.	6 oz. min.
Pretravel	.078 max.	.718 max.	.188 max.
Differential Travel	.002 max.	.229 max.	.006 max.
Overtravel	.219 min.	.828 min.	.219 min.

Micro-Switch No.		No. Conduit Openings	Actuator Type	List Price
Side Mount	Flange Mount			
BZG1-2RN	**BZH1-2RN**	1	Plunger	**$25.45**
BZG2-2RN	**BZH2-2RN**	2	Plunger	**28.75**
BZG1-2RN62	**BZH1-2RN62**	1	Rod Lever	**37.65**
BZG2-2RN62	**BZH2-2RN62**	2	Rod Lever	**40.80**
BZG1-2RN2	**BZH1-2RN2**	1	Roller Lever	**35.55**
BZG2-2RN2	**BZH2-2RN2**	2	Roller Lever	**38.70**

*BZH Series slightly lower.

MICRO SWITCH "LS" Limit Switches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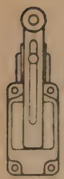
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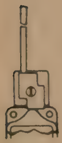
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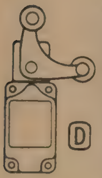
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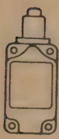
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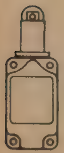
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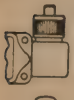
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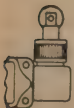
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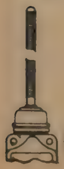
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Compact Type

201LS1

18PA1

Plug-in Type

Available in compact or plug-in type. Switches are field adjustable and components are interchangeable to minimize inventory. Contact Arrangement: Two-circuit, double break. Screw type terminals. LS compact limit switches are available in versions listed by UL, CSA and Coast Guard; types, data and prices available on request. **Characteristics: O.F.**—Operating force; **P.T.**—Pretravel; **O.T.**—Overtravel.

ROTARY MOTION LEVER ACTUATOR

Micro Switch No.	Rat-ing	Fig.	O.F. Max.	P.T. Max.	O.T. Min.	List Price
MOMENTARY CONTACT						
1LS1*	10‡	A	3 lb.	20°	30°	**$70.60**
1LS19*	10‡	A	3 lb.	5°	30°	**75.00**
1LS131	10‡	A	18 oz.	5°	30°	**75.00**
1LS501*	10§	A	3 lb.	20°	30°	**82.50**
1LS6*	10‡	A	18 oz.	20°	30°	**70.60**
7LS1†	10‡	A	3 lb.	20°	30°	**68.80**
1LS3*	10‡	B	3 lb.	20°	30°	**77.65**
1LS58	10‡	B	3 lb.	5°	30°	**82.10**
1LS59	10‡	B	18 oz.	5°	30°	**82.10**
1LS10*	10‡	C	5 oz.	20°	30°	**75.00**
1LS47*	10‡	C	5 oz.	5°	30°	**79.45**
1LS53	10‡	C	3 oz.	5°	30°	**81.40**
MAINTAINED CONTACT						
6LS1††	10	D	2 lb.	55°	35°	**$88.20**
6LS3	10	D	2 lb.	55°	35°	**89.55**

*Compact types listed; for plug-in type, change Prefix **1** to **201**; same price. †Cavity mount version of 1LS1. ††For plug-in type, change Prefix **6** to **206** and subtract **$4.20** from price. ‡Rated 10 amps at 120, 240, 480 VAC; 600 VAC max. pilot duty. §Rated 10 amps at 120 VAC.

PUSH MOTION PLUNGER ACTUATOR

MOMENTARY CONTACT

2LS1*	10‡	E	7 lb.	.065″	.250″	**$71.25**
2LS111*	10‡	E	36 oz.	.065″	.219″	**82.70**
5LS1**	10‡	F	7 lb.	.065″	.219″	**75.90**
4LS1†	10‡	G	9 lb.	.109″	.250″	**76.35**
3LS1††	10‡	H	9 lb.	.109″	.219″	**86.05**

*Compact types listed; for plug-in type, change Prefix **2** to **202** and subtract **$9.10** from price. **For plug-in type, change Prefix **5** to **205** and subtract **$5.10** from price. †For plug-in type, change Prefix **4** to **204** and subtract **$1.30** from price. ††For plug-in type, change Suffix **3** to **203** and subtract **$2.10** from price. ‡Rated 10 amps at 120, 240, 480 VAC; 600 VAC max. pilot duty.

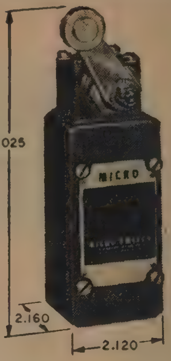
RANDOM MOTION SPRING WIRE ACTUATOR

MOMENTARY CONTACT

8LS1*	10‡	I	5 oz.	....	....	**$71.05**
8LS3*	10‡	I	5 oz.	....	....	**71.05**
8LS125*	10‡	I	1 oz.	....	....	**79.20**
8LS152*	10‡	I	5 oz.	....	....	**71.05**

*Compact types listed; for plug-in type, change Prefix **8** to **208** and subtract **$8.90** from price. ‡Rated 10 amps at 120, 240, 480 VAC; 600 VAC max. pilot duty.

NOTE: Plug-in types require terminal block #18PA; List Price, $8.00.



"ML"

"ML" HEAVY DUTY LIMIT SWITCHES

Rugged oiltight construction with precision operation; sealed against liquid splash; cast aluminum housing. Sealed operating heads prevent entry of dirt, dust, abrasives or liquids. Adjustable rotary or plunger operation; also available without actuator. Momentary contacts. SPDT and 2-circuit types not interchangeable. UL and CSA listed.

SPDT TYPES WITH ACTUATOR

Rated: 20 amps, 120, 240, 480 or 600 VAC; ½ amp, 115 VDC; ¼ amp, 230 VDC; ¾ hp, 120 VAC; 1½ hp, 240 VAC. **Pilot Duty Rating:** 600 volts AC maximum.

Micro Switch No.	Actuator	Oper. Force Max.	Pre-travel	Over-travel	★ List Price
51ML1	Roller lever	3 lbs.	12°	60°	**$96.90**
2ML1	Plunger	6 lbs.	.025″	.500″	**64.40**
5ML1	Roller plunger	6 lbs.	.025″	.500″	**83.30**
51ML10	Aluminum rod	5 oz.	12°	60°	**96.20**
51ML17	Roller lever*	3 lbs.	12°	60°	**101.10**

*Magnetic blow-out type rated 10 amps, 125 VAC or 125 VDC, resistive; ¼ hp, 125 VDC non-polarized; ½ hp, 125 VDC polarized. Not UL and CSA listed.

TWO CIRCUIT, DOUBLE BREAK TYPES WITH ACTUATOR

Rated: 10 amps, 120, 240, 480 or 600 VAC; 0.8 amp, 115 VDC; 0.4 amp, 230 VDC; ½ hp, 120 VAC; 1 hp, 240 VAC. **Pilot Rated:** 600 volts AC maximum.

151ML1	Roller lever	3 lbs.	15°	60°	**$105.15**
151ML10	Aluminum rod	5 oz.	15°	60°	**105.75**

DPDT TYPES WITH ACTUATOR

Rated: 10 amps, 125 or 250 VAC; 0.3 amp, 125 VDC; 0.15 amp, 250 VDC. 51ML7 has sealed operating head.

51ML7	Roller lever	3 lbs.	18°	55°	**$119.35**

LIMIT SWITCHES WITHOUT ACTUATOR

Rotary motion. Electrical ratings same as equivalent actuator types, above. Roller lever actuators listed below.

Micro Switch Number	Type	Oper. Torque	Pre-travel	Over-travel	List Price★
151ML2	2-circuit	5.34 in.-lb.	15°	60°	**$ 95.10**
51ML2	SPDT	5.34 in.-lb.	12°	60°	**86.85**
51ML22	SPDT	25 in.-oz.†	12°	60°‡	**94.90**
51ML72	DPDT	5.34 in.-lb.	18°	55°	**109.35**

*Maintained contacts; others momentary. †Maximum. ‡Minimum.

SPECIAL ACTUATORS FOR "ML" AND "ML-E1"

Nylon and steel roller-lever actuators (use nylon roller type only for ML-E1 explosion-proof switches).

Lgth. (In.)	Nylon Roller No.	List Price★	Steel Roller No.	List Price★
4.5	**6PA109**	**$12.15**	**6PA117**	**$10.60**
4	**6PA108**	**12.00**	**6PA116**	**10.50**
3.5	**6PA107**	**11.85**	**6PA115**	**10.30**
3	**6PA106**	**11.65**	**6PA114**	**10.10**
2.5	**6PA105**	**11.50**	**6PA113**	**9.95**
2	**6PA104**	**11.30**	**6PA112**	**9.75**
1.78	**6PA103**	**11.30**	**6PA111**	**9.75**
1.78*	**6PA110**	**9.35**	**6PA118**	**9.90**

*Reversible.

Micro Switch No 6PA19 Aluminum Rod Actuator—0.125″ dia. x 5¼″ l. rod can be cut and formed. List Price..... **$8.30***

★WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH Explosion-Proof Switches

TYPE "EX" EXPLOSION-PROOF SWITCHES

Designed for limits, safeties and interlocks in explosive atmosphere. Compact NEMA housings with ample wiring space. For Class I Group C and D; Class II, Groups E, F and G atmospheres. Mount from top, bottom, back or end. Captive cover screws; replaceable switching unit. Roller arm actuators adjustable through 360°. Clockwise actuation, except as indicated. Overtravel plunger actuators (-Q, -Q800 and -N15) have case-hardened plunger, withstand steady load of 100 lbs. without injury. Cross-roller arm (EX-CR) has roller perpendicular to long axis. Manual actuator (EX-AR50) type has large paddle for fast, easy operation. **Contacts:** SPDT except EXD series, DPDT. **EX Series UL Rated:** 15 amps, 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; ⅛ hp, 125 VAC; ¼ hp, 250 VAC. **EXA Series UL Rated:** 20 amps, 125, 250 or 480 VAC; 10 amps, 125 VAC "L"; ½ amp, 125 VDC; ¼ amp, 250 VDC; 1 hp, 125 VAC; 2 hp, 250 VAC. **EXD Series UL Rated:** 10 amps, 125 or 250 VAC; 0.3 amp, 125 VDC; 0.15 amp, 250 VDC. **EXH Series Rated:** 10 amps induct. and 25 amps resis., 28 VDC; 1 amp, 125 VAC; U/L, 1 amp, 125 VAC. **Type EX-N15 Rated:** UL, 10 amps, 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; includes elastomer plunger boot. All types include mounting bracket, except as indicated. EXH series has hermetically-sealed switching unit.

Micro Switch Number	Actuator	Oper. Force	Maximum Pre-travel	Maximum Over-travel	★ List Price
EX-AR	Roller arm	8–20 oz.	.219″	90°	$ 67.85
EX-AR800	Roller arm*	8–20 oz.	.219″	90°	75.50
EX-AR30	Roller arm†	2.5 lb.	.065″	25°	69.70
EX-AR16	Roller arm‡	2 oz.	......	......	74.35
EX-AR20	None	§	.219″	90°	62.90
EX-CR	Cross-roller	8–20 oz.	.219″	90°	67.85
EX-AR128	1-way roller	8–20 oz.	.219″	90°	75.80
EX-AR1613	Rod#	2 oz.	18°	40°•	79.75
EX-AR50	Manual	2.5 lb.	......	......	71.65
EX-Q	Plunger	3 lb.	.078″	.188″•	67.85
EX-Q800	Plunger*	3 lb.	.078″	.188″•	73.00
EX-N15	Plunger	3 lb.	.078″	.188″•	69.85
EXA-AR	Roller arm	12–32 oz.	.219″	25°	68.55
EXA-Q	Plunger	2 lb.	.050″	.125″•	70.80
EXD-AR	Roller arm	8–24 oz.	.250″	25°	.....
EXD-Q	Plunger*	3 lb.	.156″	.141″•	.....
EXH-AR3	Roller arm*	8–24 oz.	.219″	25°	118.45
EXH-AR33	Roller arm*†	2.5 lb.	.065″	25°	118.70

*Listed for UL Class I, Group B (hydrogen) atmospheres. †Counter-clockwise actuation. ‡Clockwise or counter-clockwise; low-force; no lever return spring or mounting bracket. §31.25 in.-oz. maximum; see listing of auxiliary actuators below. #Low-force rod; no mounting bracket included. •Minimum.

AUXILIARY ACTUATORS FOR "EX" SWITCHES

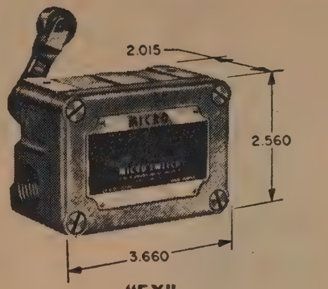
For type EX-AR20 switch, listed above.

Micro Sw. No.	Type	Material	List Price★
6PA5-EX	Roller arm	Bronze	$20.00
6PA127-EX	Roller arm	Nylon	20.00
6PA130-EX	One-way roller arm	Bronze	21.85
6PA131-EX	Cross-roller arm	Bronze	24.45
6PA136-EX	Rod	Aluminum	22.95
6PA138-EX	Adjust. roller arm	Bronze	24.30
6PA142-EX	CCW 6PA130-EX	Bronze	21.85

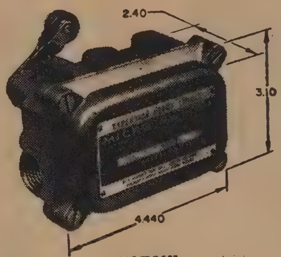
TYPE "EXMN" EXPLOSION-PROOF SWITCHES

Similar to "EX" series above, but 2-circuit double-break contacts. Bracket included. **Actuator:** EXMN-AR, clockwise roller arm; EXMN-AR30, counter-clockwise roller arm; EXMN-Q, straight plunger. Listed for UL Class I, Group B (hydrogen) atmospheres. **Rated:** UL and CSA listed: 10 amp, 125, 250 or 480 VAC; 0.8 amp, 125 VDC; 0.4 amp, 250 VDC; ½ hp, 125 VAC, 1 hp, 250 VDC.

Micro Switch No.	Oper. Force	Pre-travel	Over-travel	List Price★
EXMN-AR	6–20 oz.	.250″	90° max.	$76.75
EXMN-AR30	2.5 lb. max.	.085″	25° max.	76.75
EXMN-Q	2 lb. max.	.078″	.141″ min.	76.75



"EX"



"1EX"

"ML-E1"

"DOUBLE-DUTY" EXPLOSION-PROOF SWITCHES

Conduit opening at both ends of switch housing permits through wiring; saves on installation problems. **Actuator:** Roller arm except 4EX5, roller rod; 22EX22, side plunger. **1EX1 (SPDT) Rating:** UL, 15 amps, 125, 250 or 480 VAC; ½ amp, 125 VDC; ¼ amp, 250 VDC; ⅛ hp, 125 VAC; ¼ hp, 250 VAC. **2EX1** (SPDT) and **22EX22** (Two SPNC circuits) **Rating:** UL, 20 amps, 125, 250 or 480 VAC; 10 amps, 125 VAC "L"; ½ amp, 125 VDC; ¼ amp, 250 VDC; 1 hp, 125 VAC; 2 hp, 250 VAC. **4EX1** and **4EX5** (DPDT) **Rating:** UL, 10 amps, 125 or 250 VAC; 0.3 amp, 125 VDC; 0.15 amp, 250 VDC.

Micro Switch No.	Oper. Force	Max. Pre-travel	Over-travel	Conduit 14NPT Dia.	★ List Price
1EX1	8–20 oz.	.219″	90° max.	½″	$63.60
2EX1	12–32 oz.	.219″	25° max.	½″	64.05
4EX1-3	8–24 oz.	.250″	25° max.	¾″	88.60
4EX5-3	8–24 oz.	.250″	25° max.	¾″	92.15
22EX22	1.75 lb.	.140″	.125″ min.	½″	67.35

TYPE "ML-E1" EXPLOSION-PROOF LIMIT SWITCHES

SPDT contacts. Rugged cast aluminum enclosures. Available with or without actuator.

20-AMP TYPES

UL and CSA listed: 20 amps, 120, 240 or 480 VAC; ½ amp, 115 VDC; ¼ amp, 230 VDC; ½ hp, 120 VAC; 1¼ hp, 240 VAC. **Pilot Duty Rating:** 600 VAC max.

Micro Switch No.	Actuator	Oper. Force	Pre-travel	Over-travel	List Price★
51ML1-E1	Roller lever*	3 lbs.	12°	60°	$143.20
2ML1-E1	Plunger*	6 lbs.	.025″	.500″	118.05
5ML1-E1	Roller plunger*	6 lbs.	.025″	.500″	125.60
51ML10-E1	Low-force rod*	5 oz.	12°	60°	142.50
51ML2-E1	None*	3.56†	12°	60°	133.15

10-AMP TYPES

UL and CSA listed: 10 amps, 120, 240 or 480 VAC; 0.8 amp, 115 VDC; 0.4 amp, 230 VDC; ½ hp, 120 VAC; 1 hp, 240 VAC. **Pilot Duty Rating:** 600 VAC max.

Micro Switch No.	Actuator	Oper. Force	Pre-travel	Over-travel	List Price★
151ML1-E1	Roller lever*	3 lbs.	15°	60°	$151.15
151ML10-E1	Low-force rod*	5 oz.	15°	60°	150.55
151ML2-E1	None*	5.34†	15°	60°	141.20

*Sealed operating head. †Inch-lbs. of operating torque (see listing at left for special actuators).

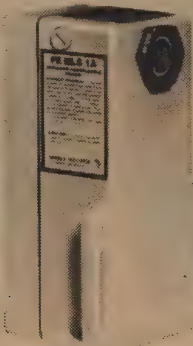
★WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH MODULATED PHOTOELECTRIC CONTROLS

MLS SERIES MODULATED LED CONTROLS

Modulated LED controls have a vibration-resistant, long-life, light-emitting diode that is electronically pulsed (modulated). The phototransistor and the receiver circuits respond only to a narrow frequency band around the LED pulsing frequency. Therefore, these controls can be used where ambient light is bright, even outdoors, without triggering. Because modulated LED controls emit an invisible infrared beam (approximately 9000 Angstrom wavelength), each control has an externally visible indicator to signal alignment of emitter with receiver (or scanner with target), and to permit operation monitoring. All modulated LED controls have built-in ON-OFF amplifiers and require logic cards for any function other than simple ON-OFF. Types FE-MLS2EA and FE-MLS5EB controls are high-intensity devices which will penetrate foggy, dusty or other poor visibility scanning conditions. In addition, they can be used to scan through nearly opaque material such as denim or colored plastic in inspection applications. The infrared beam of these high-intensity devices is harmless to the naked eye. All controls have integral protection against industrial electrical noise and inductive load spikes.

MLS1A SERIES



The FE-MLS1A is a UL and CSA listed AC-powered control with a self-contained power supply. It scans a maximum of 30 feet to a retroreflective target. False pulse protection during the initial power surge applies only for simple ON-OFF control. The control includes a sensitivity adjustment and a 10-amp DPDT relay. Right angle mounting flanges are integral. **Maximum Operation Rate:** 18 times per second. **Logic:** ON-OFF control (light or dark selection by means of a jumper wire). Uses LOG Series logic cards for other operations. **Input Power:** 105–130 or 210–260 VAC, 50–60 Hz. 4 VA.

Micro Switch No. FE-MLS1A—Control for 115 VAC operation. List Price.......................................**$237.50**

Micro Switch No. FE-MLS1A-T230—Control for 230 VAC operation. List Price.......................................**$248.20**

MLS2B SERIES

The FE-MLS2B is a UL and CSA listed AC-powered control. It consists of separate emitter and receiver—each with its own power supply—designed for long-distance scanning or penetration of murky atmospheres. Maximum scanning distance is 2500 feet. No logic card is needed for simple ON-OFF response—for which there is a 70-millisecond false pulse protection during the initial power surge. A built-in mode selector switch determines light or dark operation. The receiver unit contains a sensitivity adjustment and a plug-in 10-amp DPDT relay. If flooded with intense ambient light, the control locks off, rather than triggers. A unique circuit in the receiver accepts a plug-in earphone alignment aid (included with the control). **Maximum Scan Distance:** 2500 feet. **Maximum Operation Rate:** 13 times per second. **Logic:** Simple ON-OFF response selected by switch. Uses LOG Series logic cards for other operations. **Input Power:** 105–130 or 210–260 VAC, 50–60 Hz, 2 VA for emitter, 3 VA for receiver.

Micro Switch No. FE-MLS2EB-LR—Standard emitter for 115 VAC operation. List Price.......................................**$293.60**

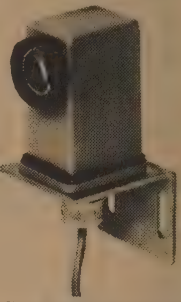
Micro Switch No. FE-MLS2RB-LR—Standard receiver for 115 VAC operation. List Price.......................................**$301.40**

Micro Switch No. FE-MLS2EB-LR-T230—Emitter for 230 VAC operation. List Price.......................................**$293.60**

Micro Switch No. FE-MLS2RB-LR-T230—Receiver for 230 VAC operation. List Price.......................................**$301.40**

Micro Switch No. FE-MB4—Auxiliary steel mounting bracket; 60° horizontal position adjustment. List Price........**$11.30**

MLS3B SERIES



The FE-MLS3B is a DC-powered, light-operated scanner. It scans a maximum 25 feet to a retroreflective target. The 12 VDC models of this series are powered from a G4B or LCR Series control base that accepts optional plug-in logic cards (which also provide optional dark operation. The current sinking output drives a 12 VDC relay or interfaces directly with logic level circuitry. A completely potted version is available for use in areas where oil or water seepage is present. The sensitivity adjustment is not accessible in the potted version. **Maximum Scan Distance:** 25 feet with 3-inch disc supplied. **Maximum Operation Rate:** 100 times per second. **Logic:** ON-OFF response; light operated; will operate a relay directly. Uses LOG Series logic cards for other operations. **Input Power:** 12–18 or 22–30 VDC, 2 watts (12-volt model) or 3 watts (24-volt model).

Micro Switch No. FE-MLS3B—Standard 12 VDC input scanner. List Price.......................................**$161.50**

Micro Switch No. FE-MLS3B-4—Potted 12 VDC input scanner List Price.......................................**$172.10**

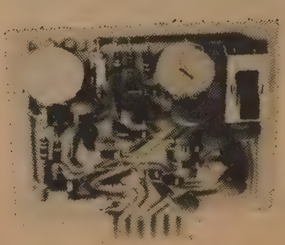
Micro Switch No. FE-MLS3B-00300—24 VDC input scanner. List Price.......................................**$168.00**

Micro Switch No. FE-MLS3B-40300—Potted 24 VDC input scanner. List Price.......................................**$185.40**

Micro Switch No. FE-LH27-127-1—Lens holder with 8-inch focus. List Price.......................................**$12.10**

Micro Switch No. FE-LH27-108—Lens holder with 3-inch focus. List Price.......................................**$40.20**

LOG SERIES LOGIC CARDS



For simple, immediate ON-OFF response, any modulated LED device will operate a relay directly; no logic card is needed. However, a card is needed to convert normally light-operated devices to the dark-operated mode. Each card (except LOG6) includes a light operate/dark operate mode selector switch. Latching logic cards cannot be used in Models FE-MLS1A or FE-MLS2A controls. Cards plug into MLS1A and MLS2A controls, and into the control base used to power other controls.

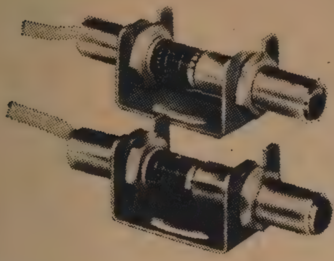
Micro Switch No.	Function	List Price
FE-LOG3	Immediate ON-OFF jumper card	**$32.10**
FE-LOG3-4	High sensitivity response	**67.00**
FE-LOG4-2	One-shot pulse output, adjustable	**73.70**
FE-LOG5	On-delay control	**67.00**
FE-LOG5R	Off-delay control	**62.90**
FE-LOG5-14	On-Off delay control	**78.00**

WRITE OR CALL FOR QUANTITY DISCOUNTS

(CONTINUED ON NEXT PAGE)

MLS SERIES MODULATED LED CONTROLS (CONT'D)

MLS4B SERIES



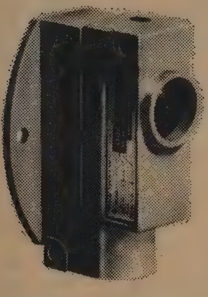
The FE-MLS4B is a DC-powered, light-operated control consisting of separate emitter and receiver. Maximum scan distance is approximately 8 feet. A regulated LCRP3 power supply can be used to power the 12 VDC control. The FE-MLS4B current sinking output drives a 12 VDC relay or interfaces directly with minicomputers. Output is disabled for 30 milliseconds after power is applied, preventing false pulses when operating loads with a response time longer than 0.5 millisecond. Optional right angle beam deflectors allow positioning of emitter and receiver at right angles to each other. **Maximum Operation Rate:** 165 times per second. **Logic:** ON-OFF response; light operated; will operate a relay directly. Uses LOG logic cards for other operations.

Micro Switch No. FE-MLS4EB-1010—Emitter. List. . **$104.70**

Micro Switch No. FE-MLS4RB-1011—Receiver. List. . **$135.45**

Micro Switch No. FE-RL3—Pair of right-angle beam reflectors. List Price. **$24.70**

MLS7A SERIES



The FE-MLS7A is a compact, DC-powered scanner. Either light-operated or dark-operated models are available. Maximum scan distance is 10 feet. The scanner features a noise-sheltered integrated receiver; flexible printed wire circuitry; and a solid acrylic optical system that eliminates all maintenance. In addition to the usual circuit protection against load spikes, circuitry is protected against reverse voltage and one-second (maximum) short circuiting between output and supply voltage. The output is disabled for 100 milliseconds after power is applied, preventing false pulses when operating loads with a response time longer than 0.5 millisecond. A regulated LCRP3 power supply can be used to power the 12-volt model. The current sinking output drives a 100-milliamp relay or interfaces directly with logic level circuitry. **Maximum Operation Rate:** 125 times per second. **Logic:** ON-OFF response; both dark-operated and light-operated models; will operate a relay directly. **Input Power:** 12–16 or 22–26 VDC.

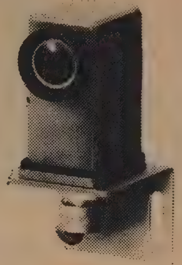
Micro Switch No.	Input VDC	Description	List Price
FE-MLS7A-1011	12	N.O., light-operated, side mount	**$117.50**
FE-MLS7A-1012	12	N.C., dark-operated, side mount	**117.50**
FE-MLS7A-2011	12	N.O., light-operated, flange mount	**120.90**
FE-MLS7A-2012	12	N.C., dark-operated, flange mount	**120.90**
FE-MLS7A-1021	24	N.O. light-operated, side mount	**117.50**
FE-MLS7A-1022	24	N.C., dark-operated, side mount	**129.90**
FE-MLS7A-2021	24	N.O., light-operated, flange mount	**120.90**
FE-MLS7A-2022	24	N.C., dark-operated, flange mount	**120.90**

LCRP3A SERIES CONTROL BASE

The LCRP3A is a small, one-piece control base, designed to power modulated LED, 12 VDC devices only. It includes a regulated power supply and a plug-in DPDT relay, but no logic card connector. Use an LCRI card connector and a LOG Series logic card for logic versatility.

Micro Switch No. FE-LCRP3A—Single-piece power supply with 10-amp DPDT plug-in relay. Standard 115 VAC input. List Price. **$64.20**

MLS5B SERIES



The FE-MLS5B is a DC-powered, light-operated control consisting of separate emitter and receiver. Maximum scanning distance is 250 feet. The 12-volt models of this series are powered from a G4B or LCR Series control base that can accept optional plug-in logic cards, which also provide optional dark operation. Current sinking output drives a 12 VDC relay or interfaces directly with logic level circuitry. If flooded with intense ambient light, the control output locks off, rather than triggers. A completely potted model is available for use in areas where oil or water seepage is present. **Maximum Operation Rate:** 20 times per second. **Logic:** ON-OFF response; light operated; will operate a relay directly. **Input Power:** 12 or 24 VDC.

Micro Switch No. FE-MLS5EB—Standard 12-VDC emitter. List Price. **$121.60**

Micro Switch No. FE-MLS5RB—Standard 12-VDC receiver. List Price. **$184.60**

Micro Switch No. FE-MLS5EB-00300—24-VDC emitter. List Price. **$121.60**

Micro Switch No. FE-MLS5RB-00300—24-VDC receiver. List Price. **$184.60**

Micro Switch No. FE-MLS5EB-40300—Potted 24-VDC emitter. List Price. **$136.00**

Micro Switch No. FE-MLS5RB-40300—Potted 24-VDC receiver. List Price. **$199.10**

MLS8B, MLS9B & MLS6B SERIES

The MLS8B is a compact, UL listed, retroreflective photoelectric control. It includes a modulated LED, a solid-state photoreceiver, a 10-amp plug-in relay and the latest monolithic integrated circuit technology. Operational features include adjustable sensitivity, false pulse protection and slide-switch mode selection (light operate/dark operate). Two optional programmable logic cards provide up to 5 additional functions. The MLS8B operates on AC line voltage and has the widest operating temperature range in the industry. A unique indicator lensing system is visible from front, rear and above. Tandem optics are recessed for protection from passing objects. Both indicator lens and optics are ultrasonically welded to the housing. The glass-reinforced polycarbonate housing provides rugged mounting with metal inserts; mounts with ¼-20 bolts. An optional mounting bracket allows 360° rotation and 90° tilt. The MLS9B is a companion diffuse scan unit (proximity type). Available in 5-ft. or 9-ft. scan range. MLS6B is a thru-scan system consisting of separate receiver and emitter; up to 500 ft. thru-scan. All MLS8B features apply to MLS9B and MLS6B. All three series available with metric threads and 230 VAC input (Suffix **MT230**) or with standard threads and 230 VAC input (Suffix **T230**); prices on request.

Micro Switch No. FE-MLS8B—Standard retroreflective control. Immediate response (On-Off) with standard DPDT relay and 115 VAC input. List Price. **$130.70**

Micro Switch No. FE-MLS9BSR—5-ft. scan range. List Price. **$165.50**

Micro Switch No. FE-MLS9BLR—9-ft. scan range. List Price. **$192.10**

Micro Switch No. FE-MLS6EB—Emitter. List. **$114.20**

Micro Switch No. FE-MLS6RB—Receiver. List. **$139.50**

Micro Switch No. FE-SW22A—2-amp solid state relay (SPST, N.O.). List Price. **$61.00**

Micro Switch No. FE-MF3—3-function logic card (on-delay, off-delay and on/off delay). List Price. **$40.60**

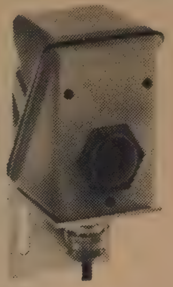
Micro Switch No. FE-MF35—5-function logic card (MF3 delay logic plus one-shot and non-repeat delayed one-shot logic). List Price. **$62.70**

Micro Switch No. FE-MB8—Mounting bracket (standard hardware); 360° rotation, 09° tilt. List Price. **$7.70**

Micro Switch No. FE-21036RY—Standard replacement relay. List Price. **$25.40**

MICRO SWITCH Photoelectric Controls

Retro-3T Scanner



Retro-5T Scanner

TR1R

Retro-4A Scanner

FE-R3 RETROREFLECTIVE SCANNERS

Small retroreflective photoelectric scanners contain a light source and photocell in a single housing, for easy installation and maintenance. When used with any suitable retroreflective target, the emitted light rays are reflected back into the photocell at any angle up to 45° from the target. Designed for use with Series FE-TR logic modules, or other solid-state control amplifiers. Scanning distances up to 10 feet can be obtained using Type FE-RR1 3″ dia. retroreflective disc. Steel enclosure is gasketed and constructed to meet requirements of NEMA-12. Includes 8-ft. 4-conductor color-coded cable. Size, 5″ x 1 15/32″ x 2 3/8″ overall, approx. Order retroreflective targets separately, below.

Model FE-R3T Scanner—Standard model with high speed, low resistance cadmium-selenide photocell, 100 volts max. Power dissipation, 50 mW at 25° C. #15 lamp requires 5.5 V at 0.34 amp; life, 10,000 hours approx. List Each.................. **$97.00**

Model FE-R3AT Fast Responsive Scanner—Similar to FE-R3T producing sharp spot of light approx. 1 1/2″ from lens, with silicon photo-transistor for fastest response. Can be used to detect small retroreflective tapes on a rapidly rotating shaft. Capable of picking up signals in reflection times of less than 1 msec. Requires 6 VDC power on lamp to eliminate cell response to AC ripple. List Each.................................... **$129.10**

Model FE-R3ABG Registration Control Scanner—Identical to FE-R3T, but uses a special blue-green filter over the photocell for use in registration control applications. Differentiates between red and white colors, including colors containing a small amount of red. High speed cadmium-sulfide photocell. List Ea.... **$139.70**

FE-R5T RETROREFLECTIVE SCANNERS

Extended range, standard retroreflective scanner features rugged, watertight (NEMA 4) case to withstand shock, vibration, water soaking. Unit contains light source and photocell in a single enclosure for easy installation and maintenance. Allows scanning distances up to 20 feet (6 meters). When used with suitable reflective target, scanner will sense light rays reflecting at any angle up to 45 degrees from center. Lamp life expectancy in excess of 10,000 hrs. (Replaceable #210 bulb). Plug-in phototransistor operates at ambient temperatures up to 122° F (50° C). Size, 5 5/8″ x 2 3/8″ x 3 13/32″ overall.
Model FE-R5T Retroreflective Scanner—List Each.. **$109.00**

FE-TR1R SERIES RETROREFLECTIVE SCANNERS

Compact and reliable photo relays contain a light source, photocell, transistorized amplifier, plug-in relay, and power supply transformer; all in a single NEMA-12 steel enclosure. Operation is possible over a distance of 10 feet, using type FE-RR1 3″ dia. retroreflective target (other targets listed below). Gasketed lens assembly can be unscrewed and one-piece drawn-steel enclosure removed for complete access to the plug-in relay, light source and time delay adjustment. Pre-wired 8-ft. 5-conductor color-coded cable for fast field installation. Solid-state circuitry; plug-in SPDT relay rated 5 amps, 115 VAC, non-inductive. **Ambient Temperature:** 60° C max. **Power Required:** 115 VAC, 50/60 Hz; 230 VAC models available. **Size:** 7 13/16″ x 2 3/8″ x 2 3/4″ including mounting bracket.

Model FE-TR1R On-Off Control—General purpose On-Off control energizes immediately with light on the photocell, de-energizes when beam is blocked. Produces up to 600 on-off operations per minute with light beam completely blocked and restored for an equal time between counts. List Each.............. **$179.70**

Model FE-TR1R-DP On-Off Control—Same as above, but with DPDT relay. List Each........................... **$202.80**

FE-R4A RETROREFLECTIVE SCANNERS

Completely sealed, compact, self-contained photoelectric controls contain a small but powerful light source and receiver which is aimed at a retroreflective disc (included), plus a solid state plug-in logic (LOG) card and DPDT plug-in relay rated 10 amps non-inductive at 115 VAC. Can be used for scanning distances of 15 feet; alignment with disc is noncritical. Adjustable sensitivity and time controls. Readily accessible terminal panel with screw terminals for all external connections. Waterproof gasketed cast aluminum enclosure is dust-tight, oil and coolant resistant (NEMA 4, 5 and 12). All units may be remotely disabled for interrogate functions. **Lamp Life:** 10,000 hours (#1424 lamp). **Ambient Temperature:** −50° to +122° F. **Power:** 15 VA, 105–130 VAC, 50/60 Hz. Optional lens-holder and LOG cards available to meet most photoelectric control requirements. **Size:** 8″ x 5″ x 4 3/8″ overall.
Model FE-R4A Retroreflective Scanner—List Each.. **$173.90**

STANDARD LOGS

The FE-R4A features a wide variety of solid state amplifiers to suit various applications. They are mounted on individual plug-in logic cards referred to as LOGS and must be specified when ordering the FE-R4A.

Model FE-LOG 3 On-Off Control—List Each......... **$32.10**
Model FE-LOG 3-1 Electronic Latch-In Control—List. **36.80**
Model FE-LOG 3-4 Hifh Sensitivity On-Off Control—List Each.. **67.00**
Model FE-LOG 3-4L High Sensitivity Electronic Latch-In Control—List Each.............................. **67.00**
Model FE-LOG 4 "One-Shot" Output, Rate-of-Change Responsive Control—List Each.......................... **63.70**
Model FE-LOG 4-L Electronic Latch-In, Rate-of-Change Responsive Non-Repeat Control—List Each........... **67.00**
Model FE-LOG 4-2 "One-Shot" Output Threshold Responsive Control—List Each.............................. **73.70**
Model FE-LOG 4-2L Electronic Latch-In Non-Repeat, Threshold Responsive Control—List Each................... **78.00**
Model FE-LOG 5 On-Delay Control—List Each...... **67.00**
Model FE-LOG 5L Electronic Latch-In, On-Delay—List **67.00**
Model FE-LOG 5R Off-Delay Control—List Each..... **62.90**
Model FE-LOG 5-14 On-Off Delay Control—List Each. **78.00**
Model FE-LOG 6 Stop-Motion Control—List Each.... **78.00**
Model FE-LOG 8 Momentary Start, Delayed "One-Shot"—List Each.. **85.70**
Model FE-LOG 8A Sustained Start, Delayed "One-Shot" Control—List Each.............................. **85.70**
Model FE-LOG 8B Momentary Start, Non-Repeat Delayed "One-Shot" Control—List Each......................... **88.90**

RETROREFLECTIVE TARGETS

For use with all retroreflective scanners. Unaffected by water or oil. Smooth surfaces resist accumulation of dirt. Ambient temperature: 150° F maximum continuous for plastic disc targets, 200° F for FE-RR2 tape.

Model No.	Description	Scanning	List Price★
FE-RR1	3″ dia. molded acrylic plastic disc with mtg. hole, metal base	10′	$4.20
FE-RR2	1″ x 2″ #3270 "Scotchlite" Tape	18″	.80
FE-RR3	1″ dia. plastic disc (no mtg. holes)	3′	1.10
FE-RR4	1/2″ dia. plastic disc (no mtg. holes)	18″	1.10

★WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH Photoelectric Controls

FE-TR SERIES LOGIC MODULES

For modular design of photoelectric controls. Any FE-TR Series module can be plugged into one common control chassis to provide desired logic function (on-off, relay latch-in, one-shot output, time delay, stop-motion, divisor, etc.). Can be actuated by a photocell, limit switch, or any resistance-type transducer. Output can be used to operate a relay, reed switch, Sincos® switch, counter, or another logic module. Building-block approach allows simple development of multiple logic functions using two or more logic modules. Each module includes a sensitivity control, time control (where applicable) and slide switch to allow output to turn On for either increased resistance (dark operation) or decreased resistance (light operation). Highly stable and reliable silicon semiconductors used throughout; temperature-compensated and regulated DC voltage for critical circuits. Filtering circuits provide maximum protection against false triggering due to ambient electrical-noise levels. All modules (except time delay) have circuit response time measured in a few microseconds. System reaction time is dependent upon the transducer, logic module and switch type used. **Signal Input:** Photocell, limit switch, or output from another FE-TR Series module. **Output:** 12–16 VDC, 150 mA max., flip-flop. **Timing Accuracy:** Less than 2% variation with line voltage changes from 90–130 V. **Interrogate Methods:** Provision for electrically interrogating input and disabling output. **Reset Time:** Less than 10 msec. **Sensitivity:** Threshold-responsive (DC coupled) except FE-TR4 and FE-TR1500A, transition-responsive (AC coupled). **Power Input:** 9–16 VAC, 50/60 Hz or 12–20 VDC, 3 watts max. FE-TRB Series chassis provides 15 VAC. **Temperature Range:** −40° F to +158° F. **Size:** Octal plug-in module, 3¾" x 2⅝" x 2⅛". Plugs into FE-TRB chassis./

GENERAL PURPOSE ON-OFF MODULES

Model FE-TR3 On-Off Module—General purpose modular control responds instantaneously to change of light or dark. List Each **$76.30**

Model FE-TR3-1 Electronic Relay Latch-In Module—Upon receipt of signal, module output is electronically latched on. Reset by closing an external, normally open contact. Minimum signal duration to operate, 1 msec, when using a fast transducer (phototransistor). List Each **$82.00**

Model FE-TR3-4 High Sensitivity Logic Module—For On-Off applications requiring high-gain amplification for very low levels of light on photocell. Includes additional vernier sensitivity control. List Each **$105.60**

Model FE-TR3-4L High Sensitivity Electronic Relay Latch-In Module—Similar to FE-TR3-1, but with high gain amplification and vernier sensitivity control. List Each **$111.30**

TIMING LOGIC MODULES

Model FE-TR4 "One-Shot" Output, Rate-of-Change Responsive Timing Module—Highly sensitive transition-responsive (AC coupled) module for registration control or other extremely fast signals. Pulse-stretching circuit permits response to signal duration of 0.1 msec, produces "one-shot" output adjustable 10–250 msec for energizing a relay. Responds to light interruptions of 1 msec using photoresistive cell; less than 0.1 msec using high-speed photo-transistor. Operates on objects moving at least 2" per second. List Each **$132.80**

Model FE-TR4-2 "One-Shot" Output, Threshold Responsive Timing Module—DC coupled module with "one-shot" output adjustable 10–150 msec, independent of actual signal-duration interval. Responds to predetermined photocell-resistance level rather than sudden change in light value, for very slow as well as moderately fast moving objects. Will respond to signals of 0.1 msec with high-speed photo-transistor, or 10 msec with cadmium selenide photocell. List Each **$132.80**

Model FE-TR4-2L Electronic Relay Latch-In, Non-Repeat Threshold Responsive Module—Similar to FE-TR3-1, but with non-repeat feature of the FE-TR4L (below). List Each **$132.80**

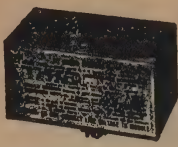
Model FE-TR4L Electronic Latch-In, Rate-of-Change Responsive, Non-Repeat Timing Module—Identical to FE-TR4 except that when signal is received, module is electronically latched On until reset by opening an external contact. List Each . . **$132.80**

DELAY MODULES

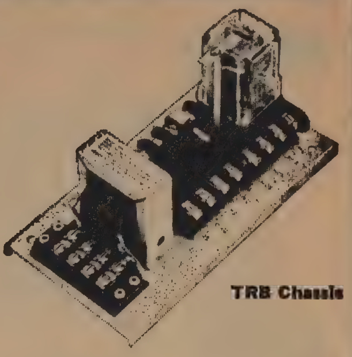
Model FE-TR5 On-Delay Module—For protection against jam-up on conveyors, etc. Normal flow of material or parts will not turn module On. If light beam is interrupted (or restored) for more than the pre-selected time interval, output will turn On to operate a relay. Time adjustable from 0.5 to 12 seconds; ratio between maximum and minimum time, 120:1. Independent sensitivity control allows operation on translucent as well as opaque objects. List Each **$109.40**

Model FE-TR5R Off-Delay Module—Design allows relay to drop out rather than energize after an adjustable time interval. When set for light operation, relay energizes immediately with light on the photocell and remains energized until light beam is interrupted for an interval adjustable from 0.5 to 12 seconds; ratio of max. to minimum time, 120:1. List Each **$109.40**

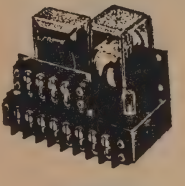
Model FE-TR5-14 Dual Time Delay Module—Precise On- and Off-Delay unit for jam-up protection. If light beam is interrupted (or restored) for more than pre-selected On time delay, module output will turn On to operate a relay. When light beam is returned to original condition, input of the module senses immediately, but output is held On for another adjustable Off-delay interval, allowing parts to clear the scanning area. On and Off times are independently adjustable, 0.5 to 12 seconds. Ratio of maximum to minimum time, 60:1. Separate sensitivity adjustment for scanning translucent as well as opaque objects. List Each. **$148.40**



TR Series Module



TRB Chassis



PE-2 Relay

SA-1RML Sensor

FE-TR6 STOP-MOTION CONTROL MODULE

For stop-motion control of moving parts. As long as parts interrupt and restore the light beam within a predetermined time interval, the module output remains On. If motion stops longer than the pre-set interval, output will turn Off, dropping out a relay to signal an alarm. Interval is adjustable from 0.5 to 12 seconds; ratio of maximum to minimum time, 120:1.

Model FE-TR6 Stop-Motion Module—List Each **$132.80**

Model FE-TR8 Delayed "One-Shot" Module—Combine functions of FE-TR3-1 memory latch and FE-TR5-14 On delay/Off delay. List Each **$156.20**

FE-TRB SERIES CONTROL CHASSIS

Open-style chassis, for use with FE-TR Series logic modules. For 100–130 VAC, 50/60 Hz, except as indicated.

Model	Description	List Each★
FE-TRB	Includes DPDT plug-in relay	**$ 65.90**
FE-TRB-1	For use with one FE-SA1RML, FE-TLS1, FE-TLS1M or FE-TLS2 light source	**70.30**
FE-TRB-2	Electromechanical counter chassis	**161.40**
FE-TRBL	FE-TRB chassis with extra plug-in socket	**81.80**
FE-TRBXL-LRY	4-socket chassis with no relays or wiring; specify 115 or 230 VAC	**100.60**
FE-30-134	FE-TRBXL chassis wired as dual FE-TRB with two S2443 relays; specify 115 or 230 V	**172.30**

FE-PE2 PHOTOELECTRIC RELAY

Compact, low-cost, fully transistorized control for counting, monitoring and limit switch operation. Can be operated by a variety of remote scanners with a range up to 12 feet. Plug-in relay is capable of speeds to 600 operations per minute. Amplifier is temperature-compensated and voltage-regulated with a flip-flop output. Addition of a 6-volt capacitor (at least 100 µF for each second) will provide a fixed time delay on relay drop-out (Off delay). Relay is energized immediately when photocell is light. DPDT relay rated 8 amps non-inductive, 115 VAC. Ambient temp., 60° C max. Size, 3¾" x 2¼" x 3".

Model FE-PE2 Relay—List Each **$101.90**

PHOTOELECTRIC PROXIMITY SENSOR

Self-contained, compact, sensitive reflective detection device for counting and web-break control applications. Black anodized aluminum housing contains long-life lamp and socket, light source, plug-in photocell, and an infrared filter to minimize effects of ambient fluorescent light. Responsive to both metallic and non-metallic objects. Most effective in detecting the presence of objects moving at slow to moderate speeds. Cadmium selenide photocell with 75 mW max. dissipation, 60 V max. Uses #4 lamp, rated 5000 hours life at 2 VAC. Requires FE-TRB-1 chassis plus any FE-TR Series logic module. Threaded sensor-head case permits mounting in ¾" dia. hole, in panels 1/32" to ½" thick. Flexible 8-ft. 4-cond. cable. Size, 1⅛" dia. x 4⅛".

Model FE-SA1RML Sensor—List Each **$96.10**

★WRITE OR CALL FOR QUANTITY DISCOUNTS

MICRO SWITCH Photoelectric Controls

PC-1L

TPC-2L

LS-1C

TLS-1

TLS-3

26-093 Reflected-Light Bracket

Micro Switch photoelectric components use the modular concept for a wide range of design possibilities to meet specific requirements. Complete system consists of a light source and photocell receiver, a control chassis, a FE-TR Series logic module, and a relay for output switching.

PHOTOCELL RECEIVERS

FE-PC1L MINIATURE PHOTOCELL RECEIVER

Uses cadmium selenide plug-in photocell. Unique lensholder provides ambient-light protection by means of internal aperture located at focal length of the lens. Lensholder mechanically centers and firmly secures the photocell. Mounts with two 6-32 tapped mtg. holes, in panel, or directly onto conduit by ¼″ pipe thread. Has 8-ft. 2-conductor shielded cable. Size, 1″ x 1¹¹⁄₁₆″ x 2¼″ overall. Splash-proof type on request.

Model FE-PC1L Photocell Receiver—List Each....... **$36.60**

FE-TPC2L TUBULAR PHOTOCELL RECEIVER

Miniature tubular, waterproof photocell receiver. Optical system with internal aperture provides a narrow field of vision (approx. 10°) for suppression of ambient light. Can be mounted with standard mounting accessories. Has 8-ft. 2-cond. shielded cable. Size, .375″ dia. x 2½″ long. With two locknuts.

Model FE-TPC2L Photocell Receiver—List Each...... **$29.80**

FE-TPC0L SUBMINIATURE PHOTOCELL

Smallest photocell unit available. Can be inserted in 0.257″ dia. hole or held in standard fuse clips. Similar in appearance to FE-TLS1 light source. Internal aperture reduces effects from ambient light. Waterproof cadmium selenide photocell is permanently sealed in epoxy.

Model FE-TPC0L Photocell—List Each.............. **$26.20**

SPECIAL PHOTOCELL RECEIVERS

Model FE-TPC2LBG Registration Control Photocell—Designed for registration control use in FE-RL1M bracket; especially for detecting various colored marks which include red pigments. Special color filter enables photocell to differentiate between colors in the visible spectrum. Photocell is permanently encapsulated in epoxy and waterproof. List Each.................. **$37.70**

Model FE-TPC3L Narrow View Photocell—Special long focal-length lens and internal aperture restrict photocell vision to 4° spherical angle. Can be used under unusually bright ambient light, or to discriminate between varying angles of reflected light. Epoxy encapsulated. List Each.................... **$37.70**

Model FE-TPC4LF High Speed, High Temperature Photocell—Has silicon photo-transistor for high speed and excellent sensitivity. Rise and delay time, approx. 100 times faster than cadmium selenide photocell. For use at temperatures up to 302° F. Epoxy encapsulated; waterproof. List Each................ **$37.70**

Model FE-PC1LBG Photocell—Combines color filter of FE-TPC2LBG with standard FE-PC1L mounting. List Each...................................... **$68.40**

Model FE-PC4LF Photocell—Similar to FE-PC1L but accepts FE-PT1 plug-in photo-transistor. List Each.......... **$45.90**

Model FE-PT1 Photo-Transistor—List Each.......... **$97.30**

PHOTOELECTRIC LIGHT SOURCES

FE-LS1C MINIATURE LIGHT SOURCE

Has adjustable-focus light beam with #12 lamp rated in excess of 5000 hours life when operated at 0.15 amp, 6.3 volts AC or DC. Includes 8-ft. 2-conductor cable with #20 insulated wire leads. Two 6-32 tapped mounting holes; can also be panel mounted, or direct mounted onto conduit by ¼″ pipe thread. Size, 1″ x 1¹¹⁄₁₆″ x 1¹⁵⁄₁₆″ maximum. Splash-proof type on request.

Model FE-LS1C Light Source—List Each............ **$31.90**

FE-LS2C LIGHT SOURCE

Slightly larger than type FE-LS1C, with a #210 lamp and approximately five times the scanning range. Operates at 4.5 volts AC, 1.5 amps, with life in excess of 10,000 hours, when used with Model FE-TRB control chassis. Has 8-ft. 2-conductor cable. Two 8-32 tapped mounting holes; can also be panel mounted or direct mounted onto conduit by ¼″ pipe thread. Size, 1⁷⁄₁₆″ x 2¼″ x 3¹⁵⁄₁₆″ maximum. Splash-proof type available on request.

Model FE-LS2C Light Source—List Each............ **$38.80**

FE-TLS3 TUBULAR LIGHT SOURCE

Small size, adjustable-focus tubular light source permits sharp focus of spot for close registration control, or normal focus for scanning up to 3 feet. Ideal for limited space applications; can be inserted into 0.377″ dia. holes drilled in equipment, in a mounting block, or snapped into standard miniature fuse clips. Can be mounted in type FE-RL1M reflected-light bracket for registration control, or used with FE-SM1 omnidirectional swivel-mount and FE-AG1 armor-grip cable. Type #2307 plug-in lamp is rated in excess of 5000 hours life at 6.3 volts, 200 mA. Has 8-ft. 2-conductor cable. Size, ½″ dia. x 2⁷⁄₃₂″ long maximum. Mounts in ⅜″ dia panel hole, in panels to ½″ thick (for ⅛″ x ¹⁄₃₂″ spot at ¾″ distance), ⅜″ thick (for sharp focus at distance of 4 feet), or ³⁄₁₆″ thick (for round spot).

Model FE-TLS3 Light Source—List Each............ **$23.90**

FE-TLS1 SUBMINIATURE LIGHT SOURCE

Smallest light source available. Can be inserted into 0.257″ dia. hole or held in fuse clips. Lamp life, 100,000 hours at 5 volts AC, 60 mA. Waterproof lamp permanently sealed in epoxy. 8-ft. insulated wire leads. Size, .250″ dia. x 1³⁄₃₂″ long.

Model FE-TLS1 Light Source—List Each............ **$21.30**

SPECIAL LIGHT SOURCES

Model FE-TLS1M Subminiature Light Source—Unit is identical in size to FE-TLS1, but with approx. double the lamp intensity. Rated 25,000 hours life at 5 volts AC, 115 mA. List Ea... **$21.00**

Model FE-TLD3 Solid State Light Emitter—Uses plug-in cartridge. Has adjustable focusing. List Each............ **$42.60**

Model FE-TLS2 Subminiature Light Source—Lamp is the same as FE-TLS1, but with housing modified for use with FE-SM1 swivel mount or FE-AG1 armor-grip cable. Can be inserted in 0.375″ dia. hole or held in fuse clips. List Each........ **$21.00**

Model FE-TLS3FF Fine Focus Light Source—Similar to light FE-TLS3, but with fine focus lensholder. Provides very sharp light spot approx. ¹⁄₆₄″ wide for detection of very small parts, such as thin wires. List Each.......................... **$26.40**

Model FE-LS1LC Medium Range Light Source—Unit is mounted in small housing to operate between the ranges of FE-LS1C and FE-LS2C, where space is at a premium. Plug-in #15 lamp rated 10,000 hours at 5.5 VAC, 340 mA. List Each......... **$34.30**

Model FE-LS3A Long Range Light Source—Used for scanning distances up to 50 feet. Low-voltage, high-intensity lamp with transformer for operation from 115 VAC, 50/60 Hz. Life of #88 lamp, 10,000 hours. Splash-proof, gasketed cast aluminum housing. Full 180° adjustment in both horizontal and vertical planes; positive locking. List Each....................... **$143.80**

PHOTOELECTRIC MOUNTING ACCESSORIES

Model FE-AG1 Armor-Grip—For FE-TLS3, FE-TPC2L, etc. With locknut bushing, 8-ft. metal cable. List Each.... **$13.30**

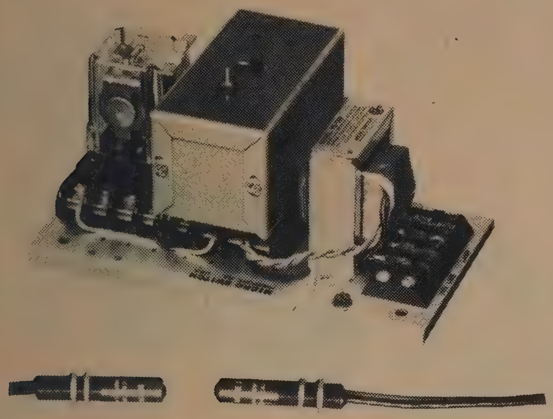
Model FE-SM1 Swivel Mount—For light sources FE-TLS3 and FE-TLS2; photocells FE-TPC2L, etc. Holds any tubular lensholder, adjusts horizontally and vertically. List Each... **$22.60**

Model FE-RL1M Reflected-Light Bracket—Secures FE-TLS3 and FE-TPC2L, FE-TPC2LBG or FE-TPC4LF receiver in proper relation to pick up registration marks or very small objects at distances from ¼″ to ⅜″. List Each................. **$21.80**

Model FE-RL2 Reflected-Light Bracket—Secures FE-TLS1 or FE-TLS1M light source and FE-TPC0L photocell for diffuse reflected scanning at ¼″. List Each................. **$17.00**

MICRO SWITCH Photoelectric Controls

MLS-TR SERIES



LED Emitters and Photoreceivers

- Tubular and die cast aluminum housing
- Remote sensing
- Discrete emitters and receivers
- Small package size
- NEMA 1, 3, 4, 12 and 13 sealing

Amplifier Modules

- Dual indicator LEDs (FE-MLS-TR3)
- Alignment and power-on LEDs (FE-MLS-TR5-14/FE-MLS-TR8B)
- Synchronous detection for noise immunity
- Adjustable sensitivity
- Time delay and pulse logic modules
- Interchangeability with existing TRB control base
- Color-coded logic identification
- Selectable light or dark operate modes
- Short circuit and false pulse protection

New modulated infrared controls use a modular approach to provide a flexible, easily customized control system. A complete control system consists of: 1. A choice of discrete LED emitters and photoreceivers in tubular anodized aluminum or die cast aluminum housing. 2. One of three different TR amplifier modules which house the modulating and demodulating circuitry. 3. A FE-TRB modular base control. Tubular housings available in 0.25″ or 0.38″ dia.

Micro Switch No. FE-MTE1 LED Emitter—0.25″ dia. tubular housing. Recommended thru scan, 3.5 ft. List Price.... **$21.65**

Micro Switch No. FE-MTR1 Photoreceiver—0.25″ dia. tubular housing. For use with FE-MTE1. List Price.......... **$21.65**

Micro Switch No. FE-MTE2 LED Emitter—0.38″ dia. tubular housing. Recommended thru scan, 8 ft. List Price..... **$23.70**

Micro Switch No. FE-MTR2 Photoreceiver—0.38″ tubular housing. For use with FE-MTE2. List Price................ **$23.70**

Micro Switch No. FE-MCE1 LED Emitter—90° die cast housing. Recommended thru scan, 10 ft. List Price............. **$26.80**

Micro Switch No. FE-MCR1 Photoreceiver—90° die cast housing. For use with FE-MCE1. List Price.................. **$26.80**

Micro Switch No. FE-MCE2 LED Emitter—90° die cast housing. Recommended thru scan, 30 ft. List Price............. **$30.90**

Micro Switch No. FE-MCR2 Photoreceiver—90° die cast housing. For use with FE-MCE2. List Price.................. **$30.90**

Micro Switch No. FE-MLS-TR3 Amplifier Module—Simple On-Off amplifier that responds immediately to a sufficient change in light at the phototransistor. Output is On for duration of input signal. List Price.................................. **$87.55**

Micro Switch No. FE-MLS-TR5-14 Amplifier Module—A combination On and Off delay circuit output which turns on only if the input signal exceeds the preset "On" delay. After input signal ends, output remains on for duration of preset Off delay; 0.15 to 15 sec. typ. range. List Price......................... **$128.75**

Micro Switch No. FE-MLS-TR8B Amplifier Module—A non-repeat delayed, one-shot pulsed output. Adjustable On delay is started by a momentary input signal. An adjustable output pulse turns on immediately at the end of delay. When output pulse ends, circuit is ready for another input signal. 0.15 to 15 sec. typ. range. List Price................................ **$133.90**

Micro Switch No. FE-TRB Control Base—Standard 2-socket, 115 VAC input model with plug-in DPDT relay. List..... **$65.90**

Micro Switch No. FE-TRBU Control Base—Same as FE-TRB, except UL recognized. List Price...................... **$65.90**

MLS8B-FO SERIES

MICRO SWITCH

- Bifurcated cables for retro and diffused scan
- Threaded single cables for thru scan
- High temperature operation:
  - End tips, 450° F (232° C)
  - Cables, 250° F (121° C)
  - Lens accessory, 225° F (107° C)
- Vibration resistant
- Noise immunity
- False pulse and transient protection
- Small end tip scanner size
- Moisture resistant
- Easy installation
- On/Off delays or pulse output logic available
- NEMA 1, 3, 4, 12 and 13 sealing
- UL/CSA Listed

MLS8B-FO housing contains all necessary components; LED emitter, receiver, power supply, amplifier and output sections. Sensitivity adjustment and light/dark operate mode switch standard. With MLS8B-FO and proper fiber-optic cables, light can be bent up, down, around corners, and into inaccessable areas or confined spaces where a photoelectric control could not normally be used. Optional time delays and pulsed output functions are available with plug-in logic cards. Switching is accomplished by a plug-in, DPDT relay. The modulated infrared beam is transmitted through a bundle of fiber-optic strands, and returns through a separate bundle of fibers, either interwoven with the transmitting bundle (bifurcated) or within a separate cable assembly to the phototransistor receiver. Scanning options depend on the type of cable selected. Retroreflective and diffuse scan use a bifurcated cable; thru scan uses two separate cables. An optional lens accessory that attaches to the cable ends significantly increases scan distance.

RECOMMENDED SCAN DISTANCE (CLEAR AIR)

	Without Lens	W/Lens Accessory
Retroreflective 3 in. FE-RR1 1 in. FE-RR3	30 in. 12 in.	12 ft. 5 ft.
Diffuse	1.5 in.	6.5 in.
Thru	12 in.	20 ft.*

*Actual thru scan distance is limited by length of cables used. Greater distance values are given as a guide to relative optical power.

Micro Switch No. FE-MLS8B-FO—Amplifier base for 115 VAC operation. List Price.............................. **$169.20**

Micro Switch No. FE-MLS8B-MT230/-FO—Amplifier base for 230 VAC operation. Metric threads. List Price...... **$188.15**

FIBER OPTIC CABLES

Micro Switch No.*	Type	Length (ft.)	Type of End Tip	List Price
FE-B3L-3	Bifurcated	3	Right Angle	**$135.25**
FE-B3T-3	Bifurcated	3	Straight threaded	**104.00**
FE-T3L-3	Thru scan	3	Right angle	**93.85**
FE-T3T-3	Thru scan	3	Straight threaded	**65.00**

*3-ft. cables listed; 5-ft. and 10-ft. versions available on special order.

MLS8B-FO ACCESSORIES

Micro Switch No.	Description	List Price
FE-FZ-L1	Lens accessory	**$28.15**
FE-FZ-B1	Mounting bracket for lens accessory above	**3.85**
FE-MF3	3-Function logic card (On-Delay, Off-Delay, On-Off Delay)	**40.60**
FE-MF35	5-Function logic card (same as above, plus one-shot, non-repeat, delayed one shot)	**62.70**

LP SERIES HEAVY DUTY

- Modulated infrared LED for ambient light rejection
- 22-ft. retro scan range
- 30-in. diffuse scan range
- 120-ft. thru scan range
- Noise protected integrated circuitry
- False pulse and transient protection
- Gunsight alignment aid
- NEMA 1, 3, 4, 12 and 13 sealing
- Sensitivity adjustment
- Compatible with logic circuitry
- UL/CSA pending

Heavy duty LP Series includes retroreflective, diffuse and thru scan, self-contained type controls in the familiar Micro Switch heavy-duty, plug-in switch housing. Base receptacle is wired and mounted, using conventional limit switch mounting hardware or with optional mounting bracket FE-MB11 for full axial adjustment. The switch body/photo head is then plugged in for quick, easy installation or replacement. All three scanning options include a variety of input and output choices. DC units are 9 to 30 VDC input devices and provide complementary output (N.O. or N.C.) as standard feature. They are available in either current sinking or current source versions for max. flexibility in interfacing with DC logic functions. Two-wire AC devices are available in normally open (N.O.) or convertible output (N.O. or N.C.) versions, and operate on line voltages from 93 to 132 VAC, 50/60 Hz. Leakage current is less than 2 mA, making these devices ideal for interfacing with programmable controllers, etc. Sensitivity control and LED output indicators standard on all models (thru scan devices have sensitivity control on the emitter only). In addition, AC units have a second LED for "power-on" indication. Hard wired scanning head can be easily positioned for scanning front, rear, left or right. Die cast zinc housing for exceptional ruggedness.

Micro Switch No.	Description	List Price
	93-132 VAC INPUT DEVICES	
FE-LPL05F-2S	Thru scan emitter	$127.00
FE-LPM05C-2S	Thru scan receiver, N.O.	158.00
FE-LPM05E-2S	Thru scan receiver, conv. N.O. or N.C.	162.00
FE-LPR04C-2S	Retro scan, N.O.	146.00
FE-LPR04E-2S	Retro scan, conv. N.O. or N.C.	150.00
FE-LPK03C-2S	Diffuse scan, N.O.	150.00
FE-LPK03E-2S	Diffuse scan, conv. N.O. or N.C.	154.00
	9-30 VDC INPUT DEVICES	
FE-LPL05F-1S	Thru scan emitter	$127.00
FE-LPM05A-1S	Thru scan receiver, N.O./N.C. complementary output, current sink	151.00
FE-LPM05B-1S	Thru scan receiver, N.O./N.C. complementary output, current source	151.00
FE-LPR04A-1S	Retro scan, complementary output, current sink	142.00
FE-LPR04B-1S	Retro scan, complementary output, current source	142.00
FE-LPK03A-1S	Diffuse scan, complementary output, current sink	146.00
FE-LPK03B-1S	Diffuse scan, complementary output, current source	146.00
	MOUNTING BRACKET	
FE-MB11	Provides full axial adjustment for all LP Series devices	$9.90

FE3 SERIES

- Modulated infrared LED for ambient light rejection
- 8-ft. retro scan range
- 8-in. diffuse scan range
- Noise protected integrated circuitry
- Rugged die cast zinc housing
- Direct compatibility with logic level circuitry or relay
- Protection against false pulse and reverse polarity
- Combination alignment/signal strength indicator
- NEMA 1, 3, 4, 12 and 13 sealing
- Sensitivity adjustment on diffuse scan models

FE3 Series photoelectric controls consist of retroreflective and diffuse scanners in light operated (SPNO) and dark operated (SPNC) models. They operate on DC input voltages from 12 to 24 volts ±10%, and provide current sinking transistor output up to 150 mA. Response time of receiver circuit is 5 msec. on and 5 msec. off. Electrically protected against reverse polarity and false pulse at power on.

Micro Switch No. FE3-RB6—Light operated (SPNO) retroreflective scanner. List Price.......................... **$104.50**

Micro Switch No. FE3-RA6—Dark operated (SPNC) retroreflective scanner. List Price.......................... **$104.50**

Micro Switch No. FE3-DA6—Light operated (SPNO) diffuse scanner. List Price.......................... **$106.70**

Micro Switch No. FE3-DB6—Dark operated (SPNC) diffuse scanner. List Price.......................... **$106.70**

OAKTRON Speakers

AUTOMOTIVE SPEAKERS

Oaktron Number	Size, Ins./ Shape	Nom. Imp., Ohms	Freq. Response Hz.	RMS Power Watts	Reso. Hz.*	Max. Depth Ins.	Net Each
ST3-69H2§	6 × 9 Ov	4-8	60-18K	20	75	2 7/8	$46.29
3WBF69K§	6 × 9 Ov	4-8	50-20K	25	55	3 7/16	53.76
CABF69H2†	6 × 9 Ov	4-8	60-14K	25	65	3 13/16	28.91
CABF69T†	6 × 9 Ov	4-8	50-14K	40	60	4	41.55
CAFE410H†	4 × 10 Ov	4-8	50-15K	15	60	2 7/8	31.18
CAFE410H2†	4 × 10 Ov	4-8	50-15K	20	60	3 3/8	33.70
CABF53H†	5 1/4 PC	4-8	80-15K	18	90	2 7/16	29.14
CABF53K†	5 1/4 PC	4-8	......	25	90	......	31.85
FE69HW‡	6 × 9 Ov	4-8	80-12K	18	90	3 3/16	15.45
BF69KW‡	6 × 9 Ov	4-8	50-13K	25	60	3 7/16	23.31
BF69TW‡	6 × 9 Ov	4-8	70-10.5K	40	70	3 7/8	30.11
BF53H‡	5 1/4 PC	4-8	50-9K	18	90	2 1/4	12.99
BF53KW‡	5 1/4 PC	4-8	90-10K	25	90	2 7/16	22.08
4EAM♦	4 Sq	4-8	170-6K	9	300	1 11/16	8.68
6G8M♦	6 PC	4-8	100-6.5K	12	120	2 3/8	12.42
48GAM♦	4 × 8 Ov	4-8	100-6K	12	140	2 1/16	14.28
57GAM♦	5 × 7 Ov	4-8	110-7K	12	110	2 3/8	13.88
57HAM♦	5 × 7 Ov	4-8	100-7K	15	110	2 9/16	14.50
69HAM♦	6 × 9 Ov	4-8	100-8.5K	15	115	3 3/16	15.85

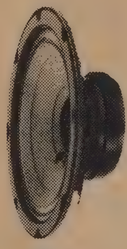
GENERAL REPLACEMENT SPEAKERS

R23A8♦	2 1/4 Rd	8	350-6.5K	2	530	1	$7.98
25A8	2 1/2 Sq	8	250-5K	1	350	1 3/16	8.57
R28A8♦	2 3/4 Rd	8	250-5K	1	300	1 3/16	8.30
R3A8♦	3 Rd	8	250-6K	2	300	1 1/16	7.90
3A3C	3 Sq	3.2	150-6K	2	240	1 5/16	6.90
3C3C	3 Sq	3.2	150-6K	5	240	1 3/8	8.30
3C8C	3 Sq	8	250-7K	5	330	1 3/8	8.30
R35A8♦	3 1/2 Rd	8	150-6K	2	200	1 3/8	6.91
35C3	3 1/2 Sq	3.2	160-5K	5	200	1 9/16	8.12
35C8	3 1/2 Sq	8	160-5K	5	200	1 9/16	8.12
4A3C	4 Sq	3.2	140-7.5K	2	175	1 9/16	6.53
4C3C	4 Sq	3.2	140-7.5K	5	170	1 11/16	8.22
4C8C	4 Sq	8	140-7.5K	5	170	1 11/16	8.30
4D3	4 Sq	3.2	160-7K	6	175	1 3/16	10.35
4D45	4 Sq	45	160-6K	6	175	2 3/16	10.52
5A3C	5 PC	3.2	140-7.5K	4	175	1 11/16	7.06
5D3	5 PC	3.2	160-7K	6	180	2 5/16	10.86
5DAS	5 PC	4-8	130-8K	6	150	2 5/16	10.94
R5EA	5 Rd	4-8	95-9K	9	115	1 3/4	8.75
5FUA	5 PC	4-8	120-11K	9	160	1 7/8	9.07
FE5HA‡	4.5/5 PC	4-8	60-13K	18	80	2 1/4	13.91
53EA	5 1/4 PC	4-8	130-6.5K	9	140	1 13/16	9.08
53GA	5 1/4 PC	4-8	90-7K	12	110	2 1/8	11.17
BF53H‡	5 1/4 PC	4-8	50-9K	18	90	2 1/4	12.99
CABF53H‡†	5 1/4 PC	4-8	80-15K	18	90	2 7/16	29.14
BF53KW‡	5 1/4 PC	4-8	90-15K	25	90	2 7/16	22.08
CABF53K‡†	5 1/4 PC	4-8	......	25	...	......	53.20
6C3C	6 PC	3.2	80-8K	6	100	2 3/16	9.08
6E8C	6 PC	8	90-8.5K	8	100	2 3/8	11.24
8E8C	8 PC	8	80-8.5K	9	95	2 13/16	12.49
8EUA	8 PC	4-8	70-11K	9	90	2 5/8	10.59
8F8	8 PC	8	70-9.5K	10	90	3 9/16	20.98
8F45	8 PC	45	75-9K	10	90	3 9/16	21.09
8GU8	8 PC	8	70-10K	12	90	2 7/8	12.59
8HU8	8 PC	8	70-10K	14	90	3	12.89
8H8W	8 PC	8	80-15K	14	80	3	13.56
10HU8	10 Rd	8	65-8.5K	15	75	3 3/4	17.54
12HU8	12 Rd	8	40-7.5K	20	60	4 1/2	20.84
12H8W	12 Rd	8	60-13K	20	60	4 1/2	21.64
18X3A8	1 3/4 × 3 Ov	8	300-3K	2	380	1	8.78
2X3A8	2 × 3 Ov	8	300-4K	2	330	1 1/8	8.78
2X38A8	2 × 3 3/4 Ov	8	300-4.5K	2	330	1 3/16	8.35
26A8	2 × 6 Ov	8	170-5.5K	3	260	1 11/16	8.22
3X5A3	3 × 5 Ov	3.2	160-8.5K	3	175	1 5/8	7.40
3X5C3	3 × 5 Ov	3.2	160-8.5K	5	175	1 11/16	8.37
3X5C8	3 × 5 Ov	8	160-8.5K	5	175	1 11/16	8.38
3X5EA	3 × 5 Ov	4-8	160-8.5K	9	200	1 11/16	8.43
46C3	4 × 6 Ov	3.2	140-7K	6	150	1 9/16	9.30
46C8	4 × 6 Ov	8	140-7K	6	150	1 9/16	9.32
46FW	4 × 6 Ov	4-8	150-8.5K	9	180	1 3/4	10.77
48E8	4 × 8 Ov	8	110-7.5K	7	150	2 1/8	11.94
CAFE48H†	4 × 8 Ov	4-8	80-15K	15	90	2 1/2	30.24
410EA	4 × 10 Ov	4-8	120-7.5K	9	140	3	13.04
410EW	4 × 10 Ov	4-8	140-14K	8	150	2 7/16	11.14
410GW	4 × 10 Ov	4-8	100-11K	12	140	2 9/16	14.04
FE410HW‡	4 × 10 Ov	4-8	60-10K	15	80	2 11/16	15.50
CAFE410H‡†	4 × 10 Ov	4-8	50-15K	15	60	2 7/8	31.18
FE410H2W‡	4 × 10 Ov	4-8	60-10K	20	90	3 1/8	18.57
CAFE410H2‡†	4 × 10 Ov	4-8	50-15K	20	60	3 3/8	33.70
57CA	5 × 7 Ov	4-8	80-9.5K	6	110	2 3/16	9.57
57EA	5 × 7 Ov	4-8	100-8.5K	9	115	2 3/8	11.72
57EW	5 × 7 Ov	4-8	90-10.5K	8	110	2 3/16	9.89
57GW	5 × 7 Ov	4-8	90-10.5K	12	110	2 3/8	12.54
FE57HW‡	5 × 7 Ov	4-8	80-9K	15	80	2 9/16	14.85
69E3C	6 × 9 Ov	3.2	65-9K	9	75	2 7/8	13.03
69E8C	6 × 9 Ov	8	65-9K	9	80	2 7/8	12.78
69EAW	6 × 9 Ov	4-8	75-11K	9	90	2 7/8	11.27
69HAW	6 × 9 Ov	4-8	90-10K	14	90	3 3/16	13.73
FE69HW‡	6 × 9 Ov	4-8	80-12K	15	90	3 3/16	15.45
BF69KW‡	6 × 9 Ov	4-8	50-13K	25	60	3 7/16	23.31
3WBF69K§	6 × 9 Ov	4-8	50-20K	25	55	3 7/16	53.76
CABF69H2†‡	6 × 9 Ov	4-8	60-14K	25	65	3 13/16	28.91
ST3-69H2	6 × 9 Ov	4-8	60-18K	25	75	2 7/8	46.29
BF69TW	6 × 9 Ov	4-8	70-10.5K	40	70	4	30.11

♦No mounting holes; speaker must be clamped or cemented. *Free-air resonance.
†Coaxial speaker with tweeter. ‡Air suspension cone. §Three-way speaker.

69E3C

48GAM



R5EA

FE410H2W

BF53KW

CAFE410H2

OAKTRON Speakers

35FRT

BF8HW

35ET

BF6H2W

FE68HW

BFW8H2

SPECIAL APPLICATION SPEAKERS

Oaktron Number	Size, Ins./ Shape	Nom. Imp., Ohms	Freq. Response Hz.	RMS Power Watts	Reso. Hz.*	Max. Depth Ins.	Net Each
F35EA†	3 1/2 FB	4-8	150-6.5K	9	170	1 7/16	$8.83
BF35FA†	3 1/2 FB	4-8	100-16K	12	134	1 3/4	11.22
T410F‡	4 × 10 Ov	4-8	95-8K	8	116	1 7/8	11.06
T410H‡	4 × 10 Ov	4-8	60-10K	15	80	2 11/16	16.60
F411EA♦	4 × 11 FB	4-8	140-7K	8	150	2 1/2	11.49
F58EA♦	5 × 8 FB	4-8	100-7K	7	105	2 5/16	10.94
FE68HW♦	6 × 8 Ov	4-8	80-13K	15	110	2 5/8	16.15
46DA§	4 × 6 Ov	4-8	130-7K	7	135	1 11/16	9.30
410EM	4 × 10 Ov	10-20-40	120-6K	8	140	3	17.13
69EMF	6 × 9 Ov	10-20-40	85-8.5K	9	95	2 1/4	18.20
FE69HWD●	6 × 9 Ov	4-8	50-15K	14	60	3 3/16	18.22
410EAF▲	4 × 10 Ov	4-8	120-7K	9	130	2 1/16	13.26
69EAF▲	6 × 9 Ov	4-8	85-9K	9	95	2 1/4	14.80
410/GMB■	4 × 10 Ov	4-8	120-7K	9	130	2 1/16	13.79
69/GMB■	6 × 9 Ov	4-8	85-9K	9	95	2 1/4	15.33
GMB	Mounting Bracket for GM cars.						1.20

*Free-air resonance. †For General Motors cars. ‡Tri-mount speaker mounts as standard 4″ × 10″ and in either football 4″ × 11″ or offset speaker mtg. centers. ♦For Ford cars. §For Volkswagen cars. ●Dual, independent voice coils permit two inputs. ▲GM type shallow profile requires GMB mtg. bracket; neither item is interchangeable with GM equipment. ■With GMB mtg. bracket.

HIGH FIDELITY AIR SUSPENSION SPEAKERS

Oaktron Number	Size Ins./ Shape	Nom. Imp., Ohms	Freq. Response Hz.	RMS Power Watts	Reso. Hz.*	Max. Depth Ins.	Net Each
FE6GW	6 Rd	8	90-14K	15	60	2 7/16	$15.28
BF6H2W	6 Rd	8	80-15K	20	55	3 1/16	18.77
BF8HW	8 Rd	8	40-16K	18	50	3	15.87
CAFE8H♦	8 Rd	8	50-14K	18	80	3 1/2	28.36
FE8KW	8 Rd	8	50-13.5K	25	55	4 9/16	45.82
BF8KUW	8 Rd	8	60-12K	25	50	3 1/2	24.03
CAFE8H2♦	8 Rd	8	50-14K	20	80	3 5/8	28.07
BF8TW	8 Rd	8	40-12K	30	30	3 1/2	30.78
BF10KUW	10 Rd	8	35-16K	35	40	4	28.66
BF10TW	10 Rd	8	30-12K	45	35	4 3/16	34.35
BF10YW	10 Rd	8	25-9.5K	100	30	4 7/16	58.38
BF12HW	12 Rd	8	35-10K	25	40	4 9/16	24.40
FE12KW	12 Rd	8	30-10K	40	35	5 7/16	52.72
CAFE12H2♦	12 Rd	8	50-16K	25	30	5 1/4	39.04
BF12TW	12 Rd	8	25-10K	50	30	5 1/8	37.89
BF15YW	15 Rd	8	20-8K	100	25	6 1/2	69.04
BF15Y2W	15 Rd	8	20-8K	150	25	7	85.44

*Free-air resonance. ♦Co-axial speaker with tweeter.

LOW FREQUENCY WOOFERS

BFW6H	6 Rd	8	45-5.5K	15	50	2 3/4	$15.38
BFW6H2	6 Rd	8	45-5.5K	20	50	3 1/16	18.39
BFW8H2	8 Rd	8	30-5K	25	35	3 5/8	19.14
BFW8T	8 Rd	8	30-4K	35	33	3 5/8	30.19
BFW10H2	10 Rd	8	25-4.5K	30	30	4 3/8	23.15
BFW10T	10 Rd	8	22-4K	35	28	4 1/4	33.95
BFW10Y	10 Rd	8	20-3.5K	50	25	4 7/16	57.65
BFW12H2	12 Rd	8	25-4.5K	30	30	5 1/16	26.99
BFW12T	12 Rd	8	20-4K	50	25	4 7/8	37.37
BFW15T	15 Rd	8	20-3K	75	26	6 3/8	43.85
BFW15Y	15 Rd	8	20-3.2K	100	24	6 1/2	68.44
BFW15Y2	15 Rd	8	18-2.5K	150	20	7 3/16	84.85

MID-RANGE SPEAKERS

FE5EMR	5 Rd	8	300-12K	10	350	1 7/8	$11.87
FE5HMR	5 PC	8	300-15K	15	380	2 1/4	15.08
BF6HMR	6 Rd	8	300-10K	15	300	2 5/8	16.32
8HMR	8 Rd	8	500-9K	15	550	3 1/2	16.90
BF8KMR	8 Rd	8	500-12K	25	500	3 1/2	25.12

*Free-air resonance.

TWEETERS

Oaktron Number	Size Ins./ Shape	Nom. Imp., Ohms	Freq. Response Hz.	RMS Power Watts	Reso. Hz.*	Max. Depth Ins.	Net Each
CURVILINEAR CONE							
18ZT	1 3/4 Sq	8	3K-19K	3	2K	1	$9.65
3ET	3 Sq	8	1.2K-17K	9	1.3K	1 3/8	9.39
35ET	3 1/2 Rd	8	1K-17K	9	1.2K	1 1/2	9.07
4ET	4 Sq	8	800-16K	10	1K	1 5/8	9.02
PHENOLIC RING							
35ERT	3 1/2 Rd	8	950-19.5K	7	1K	1 1/8	$12.94
35FRT	3 1/2 Rd	8	1K-19K	10	1.1K	1 5/16	13.91
35HRT	3 1/2 Rd	8	1K-19K	15	1.4K	1 1/2	16.27

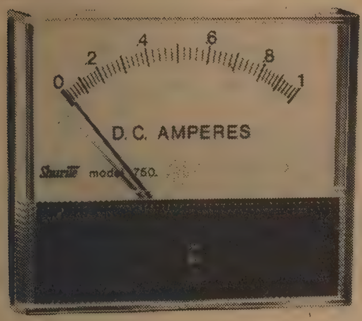
*Free-air resonance.

Shurite® Electrical Panel Meters

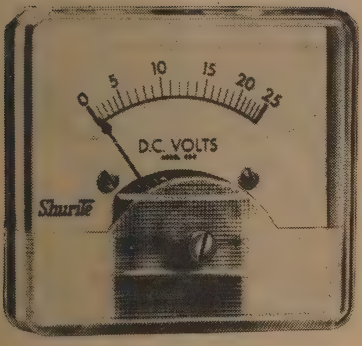
Attractive, rugged, dependable instruments have accuracy well within 5% and have the ability to give the same reading time after time for identical electrical values. DC meters are polarized-vane, solenoid type, or moving-magnet construction when indicated. AC meters are double-vane repulsion type with jeweled bearings. The jewel construction costs more to build, but it pays off by providing continuing accuracy during a longer useful life. All types are guaranteed. **Mounting:** Model 350 requires a rectangular mounting hole 1 21/32" × 17/32"; Model 750 and 850 require any size mounting hole from 2 1/16" to 2 5/32". **Panel Calibration(s)**—Meters are calibrated for non-magnetic panels. If for magnetic (steel) panel mounting, specify thickness and overall size of panel, and add suffix "**S**" to stock number when ordering. If not specified, meter will be supplied for .040" panel.

D.C. MILLIAMPERES

Series 350



Series 750



Series 850

Model 5406-LT

DC MILLIAMMETERS

* Range	SERIES 350 Resis., Approx. Ohms	SERIES 350 Stock No.	SERIES 350 Net Each	SERIES 750 Resis., Approx. Ohms	SERIES 750 Stock No.	SERIES 750 Net Each	SERIES 850 Resis., Approx. Ohms	SERIES 850 Stock No.	SERIES 850 Net Each
0-1	500	3300	$8.75	1000	7336z	$10.60	1000	8336z	$10.55
0-3	....	....	....	....	....	....	4500	8301z	8.50
0-5	90	3302	8.10	150	7302z	10.35	3700	8302z	8.20
0-10	40	3303	8.10	45	7303z	10.35	1400	8303z	7.95
0-25	15	3305	8.10	15	7305z	10.35	170	8305z	7.90
0-50	4	3306	8.10	4.1	7306z	10.35	60	8306z	7.90
0-100	1	3307	8.30	1	7307z	10.45	15	8307z	7.90
0-150	....	....	....	....	....	....	7	8308z	7.90
0-200	.3	3309	8.30	4	7309z	10.45	4.5	8309z	7.90
0-300	.13	3310	8.30	....	....	....	1.7	8310z	7.90
0-500	.07	3312	8.40	.07	7312z	10.45	.7	8312z	7.90

DC AMMETERS

0-1	....	....	....	.015 max.	7201z	$10.45	.105 max.	8201z	$7.90
0-3	.004 max.	3202	$8.30	....	....	....	.02 max.	8202z	7.90
0-5	.004 max.	3203	8.30	.015 max.	7203z	10.45	.02 max.	8203z	7.90
0-10	.004 max.	3205	8.30	.015 max.	7205z	10.45	.02 max.	8205z	7.90
0-15	....	....	....	....	....	....	.02 max.	8206z	7.95
0-25	....	....	....	.015 max.	7207z	10.75	.02 max.	8207z	8.40
0-50	....	....	....	.015 max.	7208z	10.75	.02 max.	8208z	8.40
20-0-20	....	....	....	....	....	....	.02 max.	8214z	8.40
50-0-50	....	....	....	....	....	....	.02 max.	8216z	8.40

DC VOLTMETERS

0-3	....	....	....	....	....	....	95	8102z	$ 7.90
0-5	1100	3104	$8.55	900	7104z	$10.45	300	8104z	7.90
0-10	2100	3107	8.55	1600	7107z	10.55	900	8107z	7.95
0-15	3100	3108	8.55	2500	7108z	10.55	2400	8108z	7.95
0-25	....	....	....	4100	7109z	10.55	1450	8109z	8.10
0-25H	....	....	....	....	....	....	5500	8110z	8.50
0-50	10000	3122	8.60	8300	7122z	10.75	2850	8112z	8.10
0-100	....	....	....	....	....	....	6800	8113z	8.50
0-150	....	....	....	24100	7115z	10.75	8650	8115z	8.50
0-150H	....	....	....	....	....	....	28000	8116z	8.90
0-300§	....	....	....	....	....	....	60000	8117z	11.45
0-500§	....	....	....	....	....	....	51400	8118z	11.45

AC MILLIAMMETERS

0-10	....	....	....	3850	7607z	$11.00	3850	8607z	$10.30
0-25	....	....	....	....	....	....	660	8601z	10.30
0-50	....	....	....	....	....	....	160	8602z	10.30
0-100	....	....	....	....	....	....	40	8603z	10.30
0-250	....	....	....	....	....	....	6.3	8604z	10.30
0-500	....	....	....	....	....	....	1.8	8605z	10.55

AC AMMETERS

0-1	....	....	....	.42 max.	7501z	$12.00	.42 max.	8501z	$9.00
0-5	....	....	....	.04 max.	7503z	12.00	.04 max.	8503z	9.90
0-10	....	....	....	.04 max.	7504z	11.75	.04 max.	8504z	9.90
0-15	....	....	....	.04 max.	7508z	11.75	.04 max.	8508z	9.90
0-30	....	....	....	.04 max.	7505z	12.00	.04 max.	8505z	10.20
0-50	....	....	....	.04 max.	7506z	12.20	.04 max.	8506z	10.60
0-80	....	....	....	.04 max.	7507z	13.50	.04 max.	8507z	10.75

AC VOLTMETERS

Range	SERIES 350 Ohms/Volt	SERIES 350 Stock No.	SERIES 350 Net Each	SERIES 750 Ohms/Volt	SERIES 750 Stock No.	SERIES 750 Net Each	SERIES 850 Ohms/Volt	SERIES 850 Stock No.	SERIES 850 Net Each
0-10	....	....	....	30	7403z	$11.10	30	8403z	$10.00
0-15	100	3404†	$11.00	35	7404z	11.10	35	8404z	10.00
0-25	....	....	....	....	....	....	50	8412z	10.25
0-50	....	....	....	100	7405z	11.10	100	8405z	10.25
0-150	325	3406†	11.55	100	7406z	11.50	100	8406z	10.55
0-300§	....	....	....	100	7407z	12.55	100	8407z	11.70
0-500§	....	....	....	....	....	....	110	8414z	13.35

*H denotes high-impedance models. †Rectifier-type meter. §Supplied with external resistor.

AC-DC LINE VOLTAGE TESTER

Push in the plug and read line voltage is all you have to do to use this meter; then plug in the TV set, ironer, toaster, washer, air conditioner, or other appliance and note the reading. Finds voltage drop or inadequate wiring simply and easily. Cord is attached to metal-cased meter which tests single outlets without acessories. **Range:** 0–150 VAC or DC.
Shurite Model 5406-LT—Net Each.. **$11.55**

BEAUPLUG® SERIES 3300

Vernitron

PLUGS AND SOCKETS

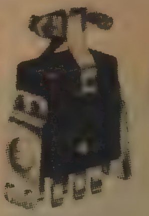
P-3306-8-AB*

S-3306-8-AB*

P-3306-DB

S-3321-CCT

P-3310-CCE


P-3306-CCT-L

S-3306-CCT-K

Chassis mount and cable mount plugs and sockets, completely interchangeable with "Jones Type" Series 300 connectors. Meet or exceed UL Standard No. 498 with all contacts carrying rated current simultaneously; individual contacts rated 10 amps, 750 V rms. Bodies are molded of high grade phenolic. Male contacts are cadmium plated brass; female contacts are cadmium plated phosphor bronze. Molded black polypropylene backshell resists scuffing, abrasion, most acids and alkalis. Solder terminals are standard; others available. Hardware is bright electroplated steel. Deep and shallow brackets are baked black wrinkle. Contacts are polarized so only common sizes will mate.

PLUGS WITH ANGLE BRACKETS

Vernitron No.	Contacts	Net Each, Lots of					
		5-24	25-49	50-99	100-249	250-499	500-999
P-3302-AB	2	$0.684	$0.547	$0.456	$0.364	$0.346	$0.328
P-3303-AB	3	.758	.606	.505	.404	.384	.364
P-3304-AB	4	.818	.655	.546	.436	.414	.392
P-3306-AB	6	.935	.748	.623	.498	.474	.448
P-3306-8-AB	6*	1.023	.818	.682	.545	.518	.491
P-3308-AB	8	1.102	.882	.735	.587	.559	.529
P-3310-AB	10	1.261	1.009	.841	.672	.639	.605
P-3312-AB	12	1.375	1.10	.917	.732	.696	.659
P-3315-AB	15	1.77	1.416	1.18	.943	.897	.849
P-3318-AB	18	2.165	1.732	1.443	1.154	1.097	1.039
P-3321-AB	21	2.639	2.112	1.76	1.407	1.337	1.267
P-3324-AB	24	3.185	2.548	2.123	1.698	1.613	1.529
P-3327-AB	27	3.747	2.998	2.498	1.997	1.898	1.798
P-3330-AB	30	4.272	3.417	2.848	2.277	2.165	2.05
P-3333-AB	33	4.825	3.861	3.217	2.573	2.445	2.316

PLUGS WITH DEEP BRACKETS

P-3302-DB	2	$1.463	$1.17	$0.975	$0.779	$0.741	$0.702
P-3303-DB	3	1.463	1.17	.975	.779	.741	.702
P-3304-DB	4	1.548	1.238	1.031	.825	.783	.742
P-3306-DB	6	1.725	1.38	1.15	.919	.873	.828
P-3306-8-DB	6*	1.725	1.38	1.15	.919	.873	.828
P-3308-DB	8	1.866	1.492	1.243	.994	.944	.895
P-3312-DB	12	2.159	1.728	1.439	1.151	1.094	1.037
P-3315-DB	15	3.768	3.015	2.512	2.009	1.909	1.808
P-3318-DB	18	3.919	3.135	2.613	2.089	1.985	1.88
P-3321-DB	21	4.133	3.306	2.755	2.204	2.094	1.984
P-3324-DB	24	4.33	3.464	2.886	2.309	2.194	2.078
P-3327-DB	27	4.918	3.935	3.279	2.622	2.492	2.361
P-3330-DB	30	5.539	4.431	3.693	2.952	2.807	2.658
P-3333-DB	33	6.106	4.884	4.07	3.255	3.094	2.93

PLUGS WITH CABLE CLAMP AT TOP

For plugs with cable clamp at end, change suffix -CCT to **-CCE**; Prices slightly higher (not available with two contacts).

P-3302-CCT	2	$1.267	$1.013	$0.884	$0.675	$0.641	$0.607
P-3303-CCT	3	1.364	1.092	.909	.727	.691	.655
P-3304-CCT	4	1.433	1.147	.955	.764	.726	.688
P-3306-CCT	6	1.576	1.261	1.05	.841	.798	.757
P-3306-8-CCT	6*	1.638	1.31	1.092	.872	.83	.785
P-3308-CCT	8	1.738	1.391	1.159	.926	.881	.834
P-3310-CCT	10	1.908	1.526	1.272	1.017	.967	.916
P-3312-CCT	12	2.053	1.643	1.368	1.095	1.04	.986
P-3315-CCT	15	2.726	2.181	1.818	1.453	1.381	1.308
P-3318-CCT	18	3.127	2.502	2.085	1.666	1.585	1.501
P-3321-CCT	21	3.779	3.023	2.52	2.014	1.914	1.814
P-3324-CCT	25	4.415	3.532	2.944	2.353	2.237	2.119
P-3327-CCT	27	5.024	4.02	3.35	2.679	2.546	2.412
P-3330-CCT	30	5.65	4.52	3.767	3.011	2.863	2.711
P-3333-CCT	33	6.249	4.999	4.166	3.332	3.166	2.999

PLUGS WITH CABLE CLAMP AT TOP LATCH

For plugs with keeper instead of latch, change suffix -CCT-L to **-CCT-K**; prices are the same.

P-3302-CCT-L	2	$1.518	$1.215	$1.012	$0.809	$0.769	$0.728
P-3303-CCT-L	3	1.619	1.295	1.079	.863	.82	.777
P-3304-CCT-L	4	1.725	1.38	1.15	.919	.873	.828
P-3306-CCT-L	6	1.894	1.516	1.262	1.01	.959	.909
P-3306-8-CCT-L	6*	1.929	1.543	1.286	1.028	.977	.925
P-3308-CCT-L	8	2.053	1.643	1.368	1.095	1.04	.986
P-3310-CCT-L	10	2.237	1.789	1.49	1.193	1.133	1.073
P-3312-CCT-L	12	2.353	1.883	1.569	1.254	1.193	1.129
P-3315-CCT-L	15	3.007	2.406	2.006	1.603	1.524	1.444
P-3318-CCT-L	18	3.461	2.769	2.308	1.844	1.753	1.661
P-3321-CCT-L	21	4.046	3.237	2.698	2.157	2.05	1.942
P-3324-CCT-L	24	4.675	3.74	3.116	2.492	2.368	2.243
P-3327-CCT-L	27	5.276	4.221	3.517	2.813	2.673	2.532
P-3330-CCT-L	30	5.906	4.725	3.938	3.149	2.993	2.834
P-3333-CCT-L	33	6.567	5.253	4.378	3.501	3.327	3.151

SOCKETS WITH ANGLE BRACKETS

Vernitron No.	Contacts	Net Each, Lots of					
		5-24	25-49	50-99	100-249	250-499	500-999
S-3302-AB	2	$0.792	$0.634	$0.528	$0.422	$0.401	$0.379
S-3303-AB	3	.827	.661	.551	.44	.419	.396
S-3304-AB	4	.864	.691	.576	.46	.438	.414
S-3306-AB	6	1.049	.84	.70	.559	.531	.504
S-3306-8-AB	6*	1.118	.895	.745	.596	.566	.536
S-3308-AB	8	1.261	1.009	.841	.672	.639	.605
S-3310-AB	10	1.505	1.204	1.003	.802	.762	.722
S-3312-AB	12	1.632	1.306	1.088	.87	.827	.783
S-3315-AB	15	2.138	1.711	1.426	1.14	1.083	1.026
S-3318-AB	18	2.401	1.921	1.601	1.279	1.216	1.152
S-3321-AB	21	2.926	2.34	1.95	1.559	1.482	1.403
S-3324-AB	24	3.431	2.745	2.287	1.83	1.738	1.647
S-3327-AB	27	3.993	3.195	2.663	2.128	2.024	1.916
S-3330-AB	30	4.576	3.661	3.051	2.44	2.319	2.196
S-3333-AB	33	5.08	4.064	3.387	2.708	2.574	2.438

SOCKETS WITH DEEP BRACKETS

S-3302-DB	2	$1.735	$1.389	$1.156	$0.925	$0.879	$0.833
S-3303-DB	3	1.399	1.119	.933	.745	.708	.671
S-3304-DB	4	1.622	1.297	1.081	.864	.822	.778
S-3306-DB	6	1.799	1.439	1.199	.959	.912	.863
S-3306-8-DB	6	2.009	1.607	1.339	1.071	1.018	.964
S-3308-DB	8	2.035	1.628	1.357	1.084	1.031	.976
S-3312-DB	12	2.456	1.965	1.638	1.309	1.244	1.179
S-3315-DB	15	3.964	3.172	2.643	2.114	2.009	1.903
S-3318-DB	18	4.47	3.576	2.981	2.383	2.265	2.145
S-3321-DB	21	4.304	3.443	2.869	2.294	2.18	2.065
S-3324-DB	24	4.931	3.945	3.288	2.629	2.498	2.367
S-3327-DB	27	5.655	4.524	3.77	3.015	2.865	2.714
S-3330-DB	30	6.039	4.831	4.027	3.219	3.06	2.898
S-3333-DB	33	6.699	5.359	4.467	3.571	3.394	3.215

SOCKETS WITH CABLE CLAMP AT TOP

For sockets with cable clamp at end, change suffix -CCT to **-CCE**; prices arc slightly higher (not available with two contacts).

S-3302-CCT	2	$1.32	$1.056	$0.88	$0.703	$0.668	$0.633
S-3303-CCT	3	1.389	1.111	.925	.74	.703	.666
S-3304-CCT	4	1.463	1.17	.975	.779	.741	.702
S-3306-CCT	6	1.67	1.336	1.113	.889	.846	.801
S-3306-8-CCT	6*	1.797	1.437	1.198	.957	.911	.862
S-3308-CCT	8	1.857	1.486	1.238	.99	.941	.891
S-3310-CCT	10	2.12	1.696	1.413	1.13	1.074	1.018
S-3312-CCT	12	2.401	1.921	1.601	1.279	1.216	1.152
S-3315-CCT	15	3.037	2.43	2.025	1.619	1.538	1.458
S-3318-CCT	18	3.415	2.733	2.277	1.821	1.731	1.639
S-3321-CCT	21	4.025	3.22	2.684	2.145	2.039	1.931
S-3324-CCT	24	4.643	3.714	3.095	2.475	2.352	2.228
S-3327-CCT	27	5.30	4.24	3.534	2.826	2.686	2.544
S-3330-CCT	30	5.906	4.725	3.938	3.149	2.993	2.834
S-3333-CCT	33	6.505	5.205	4.338	3.468	3.297	3.123

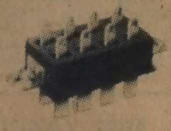
SOCKETS WITH CABLE CLAMP AT TOP, KEEPER

For sockets with latch instead of keeper, change suffix -CCT-K to **-CCT-L**; prices are the same.

S-3302-CCT-K	2	$1.693	$1.355	$1.129	$0.902	$0.858	$0.812
S-3303-CCT-K	3	1.90	1.52	1.267	1.012	.962	.912
S-3304-CCT-K	4	1.735	1.389	1.156	.925	.879	.833
S-3306-CCT-K	6	2.014	1.611	1.342	1.074	1.02	.967
S-3306-8-CCT-K	6*	2.088	1.671	1.392	1.113	1.058	1.002
S-3308-CCT-K	8	2.186	1.749	1.458	1.165	1.108	1.049
S-3310-CCT-K	10	2.557	2.046	1.704	1.363	1.295	1.227
S-3312-CCT-K	12	2.663	2.131	1.776	1.419	1.349	1.278
S-3315-CCT-K	15	3.463	2.771	2.309	1.847	1.754	1.662
S-3318-CCT-K	18	4.035	3.229	2.69	2.152	2.045	1.937
S-3321-CCT-K	21	4.32	3.456	2.88	2.302	2.189	2.073
S-3324-CCT-K	24	4.987	3.99	3.325	2.658	2.527	2.393
S-3327-CCT-K	27	5.565	4.452	3.71	2.967	2.82	2.671
S-3330-CCT-K	30	6.219	4.976	4.147	3.316	3.151	2.985
S-3333-CCT-K	33	6.823	5.459	4.55	3.638	3.458	3.275

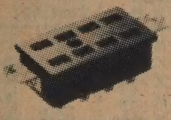
*Contacts have positive orientation to eliminate possibility of mismating.

BEAUPLUG® PLUGS AND SOCKETS, BEAUCAPS



P-5408-AB

P-5408-SB



S-5408-AB

P-5408-DB

P-5406-CCT

S-5406-CCT

BEAUPLUG SERIES 5400 PLUGS AND SOCKETS

Chassis and cable mount connectors are UL and CSA Listed, with individual contacts rated at 15 amps, 1750 V rms. Meet or exceed UL Std. No. 498 with all contacts carrying rated current simultaneously. Mate with "Jones Type" 2400 or 400 series connectors. Male contacts are cadmium plated brass; double-wiping female contacts are cadmium plated phosphor bronze. Molded black polypropylene resists scuffing, abrasion, most acids and alkalis, non-corrosive. Solder terminals are standard.

PLUGS WITH ANGLE BRACKETS

Vernitron No.	Contacts	Net Each, Lots of					
		5-24	25-49	50-99	100-249	250-499	500-999
P-5404-AB	4	$1.831	$1.465	$1.22	$0.976	$0.928	$0.879
P-5406-AB	6	2.067	1.654	1.378	1.101	1.047	.992
P-5408-AB	8	2.037	1.63	1.358	1.087	1.032	.977
P-5410-AB	10	2.61	2.088	1.739	1.392	1.322	1.253
P-5412-AB	12	2.942	2.353	1.961	1.568	1.49	1.412

PLUGS WITH DEEP BRACKETS

P-5404-DB	4	$3.429	$2.743	$2.286	$1.827	$1.737	$1.645
P-5406-DB	6	3.94	3.152	2.627	2.101	1.997	1.891
P-5408-DB	8	4.076	3.261	2.717	2.173	2.065	1.956
P-5410-DB	10	4.712	3.769	3.141	2.512	2.387	2.261
P-5412-DB	12	4.977	3.981	3.318	2.653	2.522	2.388

PLUGS WITH SHALLOW BRACKETS

P-5404-SB	4	$2.186	$1.749	$1.458	$1.165	$1.108	$1.049
P-5406-SB	6	2.498	1.999	1.665	1.332	1.266	1.199
P-5408-SB	8	2.894	2.315	1.929	1.542	1.466	1.389
P-5410-SB	10	3.127	2.502	2.085	1.666	1.585	1.501
P-5412-SB	12	3.474	2.779	2.316	1.852	1.761	1.667

PLUGS WITH SNAP "C" CLIP

P-5404-SCC	4	$1.871	$1.497	$1.247	$0.997	$0.948	$0.898
P-5406-SCC	6	2.157	1.726	1.437	1.15	1.093	1.035
P-5408-SCC	8	2.451	1.961	1.633	1.307	1.241	1.177
P-5410-SCC	10	2.901	2.321	1.935	1.547	1.47	1.393
P-5412-SCC	12	3.217	2.574	2.144	1.715	1.63	1.543

PLUGS WITH CABLE CLAMP AT TOP

For plugs with cable clamp at end, change suffix -CTT to **-CCE;** prices slightly higher.

P-5404-CCT	4	$2.841	$2.273	$1.894	$1.514	$1.439	$1.363
P-5406-CCT	6	3.217	2.574	2.144	1.715	1.63	1.543
P-5408-CCT	8	3.519	2.815	2.346	1.876	1.783	1.689
P-5410-CCT	10	3.898	3.119	2.599	2.078	1.975	1.871
P-5412-CCT	12	4.067	3.254	2.711	2.169	2.061	1.953

PLUGS WITH FLARED HOLE AT TOP

P-5404-FHT	4	$2.461	$1.969	$1.641	$1.312	$1.248	$1.181
P-5406-FHT	6	2.536	2.029	1.691	1.352	1.285	1.217
P-5408-FHT	8	2.798	2.239	1.866	1.491	1.417	1.343
P-5410-FHT	10	3.058	2.446	2.038	1.63	1.55	1.467
P-5412-FHT	12	3.362	2.69	2.242	1.792	1.703	1.613

SOCKETS WITH ANGLE BRACKETS

Vernitron No.	Contacts	Net Each, Lots of					
		5-24	25-49	50-99	100-249	250-499	500-999
S-5404-AB	4	$1.961	$1.569	$1.307	$1.045	$0.993	$0.941
S-5406-AB	6	2.249	1.80	1.50	1.199	1.14	1.079
S-5408-AB	8	2.639	2.112	1.76	1.407	1.337	1.267
S-5410-AB	10	2.848	2.279	1.90	1.518	1.444	1.367
S-5412-AB	12	3.111	2.489	2.074	1.658	1.576	1.492

SOCKETS WITH DEEP BRACKETS

S-5404-DB	4	$3.397	$2.718	$2.265	$1.81	$1.721	$1.63
S-5406-DB	6	3.694	2.955	2.462	1.969	1.872	1.772
S-5408-DB	8	3.694	2.955	2.462	1.969	1.872	1.772
S-5410-DB	10	4.192	3.354	2.795	2.234	2.124	2.012
S-5412-DB	12	4.486	3.589	2.991	2.391	2.274	2.153

SOCKETS WITH SHALLOW BRACKETS

S-5404-SB	4	$2.324	$1.859	$1.549	$1.239	$1.178	$1.115
S-5406-SB	6	2.684	2.148	1.789	1.431	1.36	1.288
S-5408-SB	8	3.013	2.41	2.009	1.606	1.526	1.446
S-5410-SB	10	3.357	2.686	2.239	1.789	1.701	1.611
S-5412-SB	12	3.694	2.955	2.462	1.969	1.872	1.772

SOCKETS WITH SNAP "C" CLIP

S-5404-SCC	4	$2.122	$1.698	$1.415	$1.131	$1.075	$1.019
S-5406-SCC	6	2.465	1.972	1.643	1.313	1.249	1.183
S-5408-SCC	8	2.904	2.324	1.937	1.548	1.471	1.394
S-5410-SCC	10	3.138	2.51	2.091	1.673	1.59	1.505
S-5412-SCC	12	3.437	2.75	2.292	1.832	1.742	1.649

SOCKETS WITH CABLE CLAMP AT TOP

For sockets with cable clamp at end, change suffix -CCT to **-CCE;** prices slightly higher.

S-5404-CCT	4	$3.044	$2.436	$2.03	$1.623	$1.542	$1.461
S-5406-CCT	6	3.387	2.709	2.258	1.805	1.716	1.625
S-5408-CCT	8	3.747	2.998	2.498	1.997	1.898	1.798
S-5410-CCT	10	4.108	3.286	2.738	2.19	2.081	1.972
S-5412-CCT	12	4.473	3.579	2.982	2.385	2.266	2.147

SOCKETS WITH FLARED HOLE AT TOP

S-5404-FHT	4	$2.461	$1.969	$1.641	$1.312	$1.248	$1.181
S-5406-FHT	6	2.726	2.181	1.818	1.453	1.381	1.308
S-5408-FHT	8	3.113	2.491	2.075	1.66	1.577	1.495
S-5410-FHT	10	3.352	2.682	2.234	1.787	1.698	1.609
S-5412-FHT	12	3.627	2.902	2.419	1.933	1.838	1.741

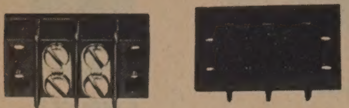
BEAUPLUG SERIES 3300 AND 5400—OTHER STYLES AVAILABLE

Beauplug series 3300 and 5400 plugs and sockets are available in a wide variety of styles, in addition to those listed on these pages. Series 3300 is available with End Brackets, with Snap "C" Clip, with Flat Plate, with Blank Back Shell, without brackets, with Flared Hole at end or top (with or without latch or keeper). Series 5400 can be ordered without brackets, with Cable Clamp at top or side and Latch or Keeper, with Blank Back Shell, with Flared Hole and Latch or Keeper, with Tapped Angle Bracket, and with up to 16 contacts in any style. Both series are available with gold, silver or rhodium contact plating; with metal backshells; with solderless spade, Wire-Wrap*, or printed circuit terminals. Write or call for full information and prices on all unlisted items.

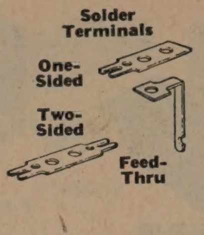
*Reg. Gardner-Denver trademark.

Vernitron BEAU® BARRIER TERMINAL STRIPS

Open Back



Closed Back



Molded of general purpose phenolic with nickel-plated brass screws and terminals, hot-tinned brass solder terminals. Available in other styles and ratings, including: Series 10000 (10-amp), Series 13000 (20-amp single row), Series 16000 (15-amp with 6-32 × 1/4″ screws). Insulating/Marker Strips are available in vulcanized fiber or phenolic. Write or call for prices.

Series	Rating		Size, In. W. × H.	Barrier Spacing	Screw Size	Accepts Wire
	V rms	Amps				
14000	250	15	7/8 × 13/32	3/8″	5-40 × 1/4″	#22-16
18000	250	20	1 1/8 × 1/2	7/16″	6-32 × 1/4″	#16-14
19000	250	20	1 1/8 × 35/64	7/16″	6-32 × 1/4″	#16-14
21000	600	30	1 5/16 × 5/8	9/16″	8-32 × 5/16″	#14-12
22000	600	30	1 5/16 × 21/32	9/16″	8-32 × 5/16″	#14-12

SERIES 14000 15-AMP OPEN BACK (250 V rms)

No. of Sections	Mtg. Centers, In.	Without Terminals					One-Sided Solder Terminals					Feed-Thru Solder Terminals				
		Vernitron No.	Net Each, Lots of				Vernitron No.*	Net Each, Lots of				Vernitron No.	Net Each, Lots of			
			5-24	25-49	50-99	100-249		5-24	25-49	50-99	100-249		5-24	25-49	50-99	100-249
1	3/4	14001	$0.439	$0.351	$0.293	$0.234	14101	$0.496	$0.398	$0.331	$0.265	14301	$0.453	$0.363	$0.302	$0.241
2	1 1/8	14002	.496	.398	.331	.265	14102	.586	.47	.39	.312	14302	.531	.425	.355	.283
3	1 1/2	14003	.553	.443	.369	.295	14103	.816	.653	.544	.435	14303	.745	.596	.496	.397
4	1 7/8	14004	.672	.538	.448	.357	14104	.994	.795	.661	.529	14304	.873	.698	.582	.466
5	2 1/4	14005	.876	.701	.584	.467	14105	1.223	.979	.815	.652	14305	1.034	.827	.689	.551
6	2 5/8	14006	1.018	.815	.678	.543	14106	1.46	1.168	.972	.779	14306	1.285	1.029	.857	.685
7	3	14007	1.087	.869	.724	.579	14107	1.607	1.286	1.071	.857	14307	1.408	1.127	.939	.75
8	3 3/8	14008	1.283	1.026	.855	.684	14108	1.782	1.426	1.188	.95	14308	1.54	1.232	1.026	.82
9	3 3/4	14009	1.40	1.121	.933	.746	14109	2.069	1.655	1.379	1.103	14309	1.722	1.378	1.147	.918
10	4 1/8	14010	1.542	1.234	1.027	.822	14110	2.278	1.823	1.518	1.215	14310	2.015	1.612	1.343	1.073
11	4 1/2	14011	1.638	1.31	1.092	.872	14111	2.451	1.961	1.634	1.307	14311	2.121	1.696	1.414	1.13
12	4 7/8	14012	1.749	1.40	1.166	.932	14112	2.563	2.051	1.709	1.366	14312	2.309	1.848	1.54	1.231
13	5 1/4	14013	1.927	1.542	1.284	1.027	14113	2.888	2.31	1.925	1.54	14313	2.546	2.037	1.697	1.358
14	5 5/8	14014	2.069	1.655	1.379	1.103	14114	3.037	2.431	2.025	1.619	14314	2.677	2.142	1.785	1.427
15	6	14015	2.25	1.799	1.499	1.199	14115	3.209	2.568	2.14	1.711	14315	2.834	2.267	1.889	1.51
16	6 3/8	14016	2.339	1.872	1.559	1.247	14116	3.532	2.825	2.355	1.882	14316	2.948	2.359	1.965	1.571
17	6 3/4	14017	2.451	1.961	1.634	1.307	14117	3.742	2.994	2.495	1.995	14317	3.264	2.612	2.176	1.741
18	7 1/8	14018	2.563	2.051	1.709	1.366	14118	3.881	3.105	2.587	2.069	14318	3.42	2.736	2.279	1.823
19	7 1/2	14019	2.801	2.24	1.867	1.492	14119	4.089	3.271	2.726	2.179	14319	3.583	2.868	2.389	1.911
20	7 7/8	14020	2.888	2.31	1.925	1.54	14120	4.288	3.431	2.858	2.287	14320	3.717	2.974	2.478	1.982
21	8 1/4	14021	2.976	2.38	1.984	1.585	14121	4.49	3.592	2.994	2.394	14321	3.954	3.164	2.637	2.108
22#	8 5/8	14022#	3.062	2.45	2.041	1.633	14122	4.959	3.968	3.306	2.644	14322	4.058	3.247	2.706	2.164

SERIES 18000 20-AMP OPEN BACK (250 V rms)

Also available as Series 19000 with closed back barrier, rated 250 V rms; to order, change prefix 18 to 19; prices slightly higher.

1	7/8	18001	$0.496	$0.398	$0.331	$0.265	18101	$0.553	$0.443	$0.369	$0.295	18301	$0.553	$0.443	$0.369	$0.295
2	1 5/16	18002	.526	.421	.35	.28	18102	.816	.653	.544	.435	18302	.816	.653	.544	.435
3	1 3/4	18003	.672	.538	.448	.357	18103	.994	.795	.661	.529	18303	.994	.795	.661	.529
4	2 3/16	18004	.933	.747	.622	.496	18104	1.31	1.049	.873	.697	18304	1.283	1.026	.855	.684
5	2 5/8	18005	1.044	.836	.696	.557	18105	1.578	1.262	1.052	.84	18305	1.517	1.214	1.011	.809
6	3 1/16	18006	1.223	.979	.815	.652	18106	1.749	1.40	1.166	.932	18306	1.697	1.359	1.131	.905
7	3 1/2	18007	1.485	1.188	.989	.792	18107	2.162	1.729	1.441	1.152	18307	2.009	1.607	1.339	1.071
8	3 15/16	18008	1.578	1.262	1.052	.84	18108	2.394	1.915	1.595	1.276	18308	2.278	1.823	1.518	1.215
9	4 3/8	18009	1.697	1.359	1.131	.905	18109	2.658	2.127	1.772	1.417	18309	2.451	1.961	1.634	1.307
10	4 13/16	18010	1.899	1.52	1.267	1.012	18110	2.917	2.334	1.946	1.554	18310	2.801	2.24	1.867	1.492
11	5 1/4	18011	2.167	1.733	1.444	1.155	18111	3.158	2.527	2.105	1.684	18311	2.976	2.38	1.984	1.585
12	5 11/16	18012	2.285	1.827	1.523	1.217	18112	3.385	2.708	2.257	1.804	18312	3.209	2.568	2.14	1.711
13	6 1/8	18013	2.421	1.936	1.614	1.291	18113	3.742	2.994	2.495	1.995	18313	3.589	2.872	2.394	1.913
14	6 9/16	18014	2.658	2.127	1.772	1.417	18114	3.963	3.17	2.642	2.113	18314	3.823	3.059	2.549	2.038
15	7	18015	2.83	2.264	1.887	1.509	18115	4.20	3.361	2.801	2.239	18315	4.023	3.219	2.682	2.144
16	7 7/16	18016	2.948	2.359	1.965	1.571	18116	4.462	3.57	2.976	2.379	18316	4.348	3.478	2.898	2.318
17	7 7/8	18017	3.062	2.45	2.041	1.633	18117	4.723	3.778	3.148	2.517	18317	4.517	3.614	3.011	2.408
18	8 5/16	18018	3.239	2.591	2.16	1.727	18118	5.079	4.063	3.397	2.708	18318	4.905	3.924	3.27	2.615
19	8 3/4	18019	3.385	2.708	2.257	1.804	18119	5.307	4.245	3.537	2.828	18319	5.164	4.131	3.442	2.753
20	9 3/16	18020	3.532	2.825	2.355	1.882	18120	5.573	4.459	3.716	2.971	18320	5.368	4.295	3.579	2.862
21#	9 5/8	18021#	3.783	3.026	2.522	2.017	18121	5.83	4.664	3.887	3.109	18321	5.715	4.572	3.81	3.047

#Available with up to 30 sections; specifications and prices available on request.

SERIES 21000 30-AMP OPEN BACK (600 V rms)

Also available as Series 2200 with closed back barrier; rated 600 V rms; to order, change prefix 21 to 22; prices slightly higher.

1	1 1/8	21001	$0.526	$0.421	$0.35	$0.28	21101	$0.672	$0.538	$0.448	$0.357	21301	$0.612	$0.489	$0.407	$0.325
2	1 11/16	21002	.586	.47	.39	.312	21102	.933	.747	.622	.496	21302	.906	.725	.604	.483
3	2 1/4	21003	.876	.701	.584	.467	21103	1.31	1.049	.873	.697	21303	1.135	.908	.757	.605
4	2 13/16	21004	1.044	.936	.696	.557	21104	1.607	1.286	1.071	.857	21304	1.517	1.214	1.011	.809
5	3 3/8	21005	1.31	1.049	.873	.697	21105	1.899	1.52	1.267	1.012	21305	1.749	1.40	1.166	.932
6	3 15/16	21006	1.517	1.214	1.011	.809	21106	2.304	1.843	1.535	1.229	21306	2.195	1.755	1.463	1.169
7	4 1/2	21007	1.659	1.328	1.106	.885	21107	2.682	2.147	1.788	1.431	21307	2.451	1.961	1.634	1.307
8	5 1/16	21008	1.809	1.448	1.206	.964	21108	2.976	2.38	1.984	1.585	21308	2.83	2.264	1.887	1.509
9	5 5/8	21009	2.162	1.729	1.441	1.152	21109	3.239	2.591	2.16	1.727	21309	3.037	2.431	2.025	1.619
10	6 3/16	21010	2.339	1.872	1.559	1.247	21110	3.762	3.009	2.508	2.004	21310	3.412	2.73	2.274	1.819
11	6 3/4	21011	2.544	2.035	1.695	1.357	21111	4.023	3.219	2.682	2.144	21311	3.762	3.009	2.508	2.004
12	7 5/16	21012	2.83	2.264	1.887	1.509	21112	4.405	3.525	2.937	2.348	21312	4.023	3.219	2.682	2.144
13	7 7/8	21013	2.976	2.38	1.984	1.585	21113	4.723	3.778	3.148	2.517	21313	4.405	3.525	2.937	2.348
14	8 7/16	21014	3.152	2.522	2.102	1.68	21114	5.139	4.112	3.426	2.741	21314	4.664	3.732	3.11	2.487
15	9	21015	3.412	2.73	2.274	1.819	21115	5.426	4.341	3.617	2.893	21315	5.079	4.063	3.387	2.708
16	9 9/16	21016	3.676	2.942	2.451	1.96	21116	5.748	4.599	3.833	3.064	21316	5.368	4.295	3.479	2.862
17	10 1/8	21017	3.881	3.105	2.587	2.069	21117	6.209	4.968	4.141	3.31	21317	5.661	4.529	3.774	3.018
18	10 11/16	21018	4.182	3.345	2.787	2.23	21118	6.878	5.502	4.586	3.668	21318	6.515	5.212	4.345	3.473
19	11 1/4	21019	4.476	3.581	2.984	2.387	21119	7.343	5.874	4.896	3.914	21319	6.955	5.564	4.637	3.708
20	11 13/16	21020	4.637	3.71	3.092	2.472	21120	7.643	6.114	5.095	4.075	21320	7.236	5.789	4.825	3.857
21	12 3/8	21021	4.847	3.878	3.232	2.584	21121	7.998	6.398	5.332	4.263	21321	7.574	6.059	5.05	4.039
22	12 15/16	21022	5.046	4.038	3.365	2.69	21122	8.344	6.675	5.564	4.448	21322	7.899	6.319	5.266	4.211
23	13 1/2	21023	5.357	4.287	3.572	2.856	21123	8.827	7.062	5.885	4.706	21323	8.349	6.68	5.567	4.452
24	14 1/16	21024	5.511	4.408	3.674	2.938	21124	9.108	7.286	6.073	4.856	21324	8.62	6.896	5.747	4.596
25	14 5/8	21025	5.601	4.481	3.734	2.986	21125	9.33	7.463	6.22	4.974	21325	8.819	7.056	5.88	4.701

*For two-sided solder terminals, change third digit in Vernitron No. from 1 to 2; prices are the same as one-sided.

LRP electronics (Lima Radio Parts Company)

STATEMENT OF POLICY

MINIMUM ORDER:

Minimum order is $10.00. All orders less than $10.00 will be subject to a $3.00 handling charge. (This charge does not apply to cash sales.)

RETURNS:

We will not accept any merchandise for credit, or for any other reason without a written return authorization.

We will not accept any merchandise for credit if not purchased within the last 90 days. There will be a 15% restocking charge on all items returned for reasons other than warranty replacement or LRP error. The return authorization will state whether there is a restocking charge.

SPECIAL ORDER MERCHANDISE: Many items are ordered for a customer's specific application, and are not used by any other customer. In these cases, the merchandise will be ordered on a non-cancelable basis, and this merchandise will not be accepted for credit.

Claims for shortages, damages, shipping errors or defective items MUST BE MADE WITHIN 30 DAYS.

TERMS:

Our terms are 2% 10 days, net 30 days, unless otherwise noted.

A service charge of 1½% per month (18% per annum) will be added to all delinquent accounts of the first day of the following month.

FREIGHT TERMS:

Merchandise will be shipped F.O.B. our store unless otherwise quoted.

Incoming freight will be added whenever customer requests that we obtain merchandise by air freight or other special carrier.

WARRANTY:

Warranty is limited to that extended to LRP Electronics by the manufacturer. Usually 90 days.

PRICES:

Prices are subject to change without notice, and price in effect at time of order will prevail. Price quotes will be in effect for 30 days. If more than 30 days has elapsed between our quotation and placement of order, new prices must be negotiated. Blanket orders will be reviewed three times each year.

Due to market fluctuations, components containing precious metals are subject to a surcharge. Where list prices are shown, trade discounts apply.

WATS LINE:

Toll free WATS service is provided for all Ohio accounts. This line is direct to the phone order desk, and WATS calls cannot be transferred to another phone or person.

BUSINESS HOURS:

8:00 a.m. until 5:00 p.m. Monday through Friday.

LINES STOCKED BY LRP ELECTRONICS NOT SHOWN IN THIS CATALOG

AMERICAN ELECTRICAL HEATER
Soldering Equipment

AMPEREX
Tubes

ARGOS
Sound columns, Baffles, Speakers

BEAR CAT
Scanner radios

BLONDER TONGUE
CATV & MATV systems

CHANNEL MASTER
CATV & MATV systems

CHEMTRONICS
Chemicals

EQUIPTO
Steel cabinets, Shelving

GENERAL ELECTRIC
Tubes, Semis, Silicone products

INDUSTRIAL TIMER
Timers

IRC/TRW
Resistors, Pots, Switches

KESTER
Solder

KEYSTONE
Terminals, Hardware

MASTER APPLIANCE
Heat guns

NON LINEAR SYSTEMS
Digital Meters

NPC
Power supplies

PANASONIC
VHS recorders, Calculators

PERMA POWER
Portable PA equipment

SAMS
Technical books

SARKES TARZIAN
Semiconductors

SYLVANIA
Tubes, Semis, Large lamps,
Projection bulbs

TALK A PHONE
Intercom systems

UNIVERSITY SOUND
Audio equipment

VEEDER ROOT
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